



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

# Advisory Circular

**Subject: AIRWORTHINESS  
CERTIFICATION OF CIVIL AIRCRAFT,  
ENGINES, PROPELLERS, AND RELATED  
PRODUCTS IMPORTED TO THE UNITED  
STATES**

**Date: 10/20/00  
Initiated by: AIR-4**

**AC No: 21-23A  
Change:**

1. **PURPOSE.** This advisory circular (AC) provides information on the Federal Aviation Administration's (FAA) objectives, regulations, and general practices for United States of America (U.S.) airworthiness certification or acceptance of civil aeronautical products imported to the U.S. It has been updated to reflect requirements of the Bilateral Aviation Safety Agreement Implementation Procedures for Airworthiness.

2. **CANCELLATION.** Advisory Circular 21-23, *Airworthiness Certification of Civil Aircraft, Engines, Propellers, and Related Products Imported to the United States*, dated July 7, 1987, is canceled.

### 3. **RELATED REGULATIONS AND ADVISORY MATERIAL**

a. **Title 49, United States Code (Title 49, U.S.C.)**, Subtitle I, Department of Transportation, and Subtitle VII, Aviation Programs.

b. **Title 14, Code of Federal Regulations (14 CFR)**, part 21, Certification Procedures for Products and Parts.

c. **FAA Advisory Circulars (AC)** inform the aviation public of nonregulatory material of interest. The latest revision of the following AC's provide detailed guidance and information to applicants for design approval of imported products:

(1) AC 00-2.12, *Advisory Circular Checklist*;

(2) AC 00-44, *Status of Federal Aviation Regulations*;

(3) AC 20-62, *Eligibility, Quality, and Identification of Aeronautical Replacement Parts*;

(4) AC 20-110, *Index of Technical Standard Orders*;

- (5) AC 21.12, *Application for U.S. Airworthiness Certificate, FAA Form 8130-6*;
- (6) AC 21-17-1, *Type Certification -- Airships*;
- (7) AC 21.17-2, *Type Certification -- Fixed Wing Gliders (Sailplanes) Including Powered Gliders*;
- (8) AC 21.17-3, *Type Certification of Very Light Airplanes under FAR 21.17(b)*;
- (9) AC 21-18, *Bilateral Airworthiness Agreements*;
- (10) AC 21-20, *Supplier Surveillance Procedures*;
- (11) AC 21-24, *Extending a Production Certificate to a Facility Located in a Bilateral Airworthiness Agreement Country*;
- (12) AC 21-27, *Production Certifications Multinational/Multicorporate Consortia*;
- (13) AC 21-28, *Airworthiness Certification of U.S. Produced Aircraft and Engine Kits Assembled Outside the United States*;
- (14) AC 21-29, *Detecting and Reporting Suspected Unapproved Parts*;
- (15) AC 21-37, *Primary Category Aircraft*; and
- (16) AC 45-2, *Identification and Registration Marks*.

AC 00-2.12, *Advisory Circular Checklist*, provides ordering information for all AC's. AC 00-2.12 and other free AC's may be ordered from:

U.S. Department of Transportation  
Subsequent Distribution Office  
Ardmore East Business Center  
3341 Q 75<sup>th</sup> Avenue  
Landover, MD 20785.

Requests for copies can be faxed to 301/386-5394. AC 00-2.12 is also available via the Internet at: <http://www.faa.gov/abc/ac-chklst/actoc.htm>.

**d. FAA Orders** prescribe the responsibilities and procedures for FAA personnel. The latest revision of the following Orders provide detailed guidance and information to applicants for design and production approval:

- (1) WA 0000.5, *Washington Headquarters Directives Checklist*;
- (2) 8110.4, *Type Certification Process*;

- (3) 8100.5, *Aircraft Certification Directorate Procedures*;
- (4) 8100.7, *Aircraft Systems Evaluation Program*;
- (5) 8110.10, *FAA Approvals of Major Modifications/Alterations*;
- (6) 8110.42, *Parts Manufacturer Approval Procedures*;
- (7) 8120.2, *Production Approval and Surveillance Procedures*;
- (8) 8120.10, *Suspected Unapproved Parts Program*;
- (9) 8130.2, *Airworthiness Certification of Aircraft and Related Products*;
- (10) 8130.20, *Registration Requirements for the Airworthiness Certification of U.S. Civil Aircraft*;
- (11) 8130.21, *Procedures for Completion and Use of FAA Form 8130-3, Airworthiness Approval Tag*;
- (12) 8130.27, *Certification and Operation of Aircraft under the Experimental Purpose(s) of Research and Development*;
- (13) 8150.1, *Technical Standard Order Procedures*; and
- (14) 8300.10, *Airworthiness Inspectors Handbook*.

Consult AC 00-2.12 to obtain ordering information for these publications.

#### **4. DEFINITIONS**

**a. Airworthiness Directives (AD's)** are substantive regulations issued by the FAA in accordance with 14 CFR part 39. An AD is issued when (1) an unsafe condition has been found to exist in a particular aircraft, aircraft engine, propeller, or appliance, and (2) that condition is likely to exist or develop in other aircraft, aircraft engines, propellers, or appliances of the same type design. Once an AD is issued, no person may operate a product to which the AD applies except in accordance with the requirement of that AD.

**b. Appliance** is any instrument, mechanism, equipment, part, apparatus, appurtenance, or accessory, including communications equipment, that is used or intended to be used in operating or controlling an aircraft in flight, is installed in or attached to the aircraft, and is not part of an airframe, aircraft engine, or propeller.

**c. Bilateral Airworthiness Agreement (BAA)** means a government-to-government executive agreement between the U.S. and the government of another country (contracting State) to facilitate the airworthiness approval or acceptance of civil aeronautical products exported from one contracting State to the other. BAA's are not trade agreements; rather, they are technical cooperation agreements, intended to provide a framework for the airworthiness authority of the importing State to give maximum practicable credit to airworthiness certification functions performed by the airworthiness authority of the exporting State using its own domestic certification system.

**d. Bilateral Aviation Safety Agreement (BASA)** means a government-to-government agreement, consisting of one Executive Agreement and one or more Implementation Procedures, to facilitate the recognition of procedures for the reciprocal acceptance of:

- (1) Airworthiness approvals of civil aeronautical products;
- (2) Environmental approval and environmental testing;
- (3) Approval and monitoring of maintenance facilities and alteration or modification facilities;
- (4) Approval and monitoring of maintenance personnel;
- (5) Approval and monitoring of crews;
- (6) Approval and monitoring of flight operations;
- (7) Flight simulator qualification evaluations; and
- (8) Approval and monitoring of aviation training establishments.

These agreements are replacing BAA's.

**e. Civil Aeronautical Product** (herein also referred to as "product") means any civil aircraft, aircraft engine, or propeller or subassembly, appliance, material, part, or component to be installed thereon.

**f. Environmental Standards** means the regulations governing the certification of designs with regard to noise characteristics, fuel venting, and exhaust emissions of civil aeronautical products.

**g. Implementation Procedures for Airworthiness (IPA)** means the procedural document authorized by the BASA Executive Agreement for design approval, production activities, export airworthiness approvals, post-design approval activities and technical assistance between authorities. This document defines the civil aeronautical

products and parts eligible for import into the U.S. and the counterpart BASA signatory country. It defines the interface requirements and activities between the authorities for the import and continued support of those civil aeronautical products.

**h. Imported to the U.S.**, as used within the context of this AC, means, for aircraft, a foreign manufactured aircraft intended to be placed on the U.S. registry. For all other foreign manufactured products, means intended for installation on a U.S.-registered aircraft even though the aircraft in either case is not operated in the U.S. (Guidance on special airworthiness certification is found in other FAA advisory materials.)

**i. Maintenance Implementation Procedures** means the procedural document authorized by the BASA Executive Agreement related to the performance of maintenance, alterations and modifications on civil aeronautical products. This document defines the process for reciprocal acceptance of each authority's recommendations for the certification, renewal, and acceptance of eligible repair stations and maintenance organizations.

**j. New**

**(1) For an aircraft**, means an aircraft that is still owned by the manufacturer, distributor, or dealer, if there is no intervening private owner or lease or time-sharing arrangement, and the aircraft has not been used in any pilot school and/or commercial operation.

**(2) For an aircraft engine or propeller**, means an aircraft engine or propeller that is still owned by the manufacturer, distributor, or dealer; and has never been installed on an aircraft, has no time in service other than testing by the manufacturer, and meets all technical requirements for a new product.

**k. Rebuilt Product** means a product that uses new or used parts that conform to new part tolerances and limits or to approved oversized or undersized dimensions that has undergone the following by the original manufacturer:

**(1) Has been disassembled, cleaned, inspected, repaired** as necessary, and reassembled to the extent possible; and

**(2) Has been tested** to the same tolerances and limits as a new product.

**l. Schedule of Implementation Procedures (SIP)** means the procedural document, similar to an IPA that is associated with some BAA's. It facilitates the approval process for aircraft and other aeronautical products being imported or exported between the U.S. and a foreign country.

**m. Used** means an aircraft, engine, or propeller that is not new, as defined in paragraph (j) above.

## 5. **ABBREVIATIONS**

- a. **ACO:** FAA Aircraft Certification Office
- b. **AEG:** Aircraft Evaluation Group
- c. **ATC:** Additional Technical Condition
- d. **BAA:** Bilateral Airworthiness Agreement
- e. **BASA:** Bilateral Aviation Safety Agreement
- f. **CAA:** Civil Aviation Authority
- g. **CFR:** U.S. Code of Federal Regulations
- h. **FAA:** Federal Aviation Administration, U.S.A.
- i. **ICAO:** International Civil Aviation Organization
- j. **ICAW:** Instructions for Continued Airworthiness
- k. **IP:** Implementation Procedures (BASA)
- l. **IPA:** Implementation Procedures for Airworthiness
- m. **JAA:** Joint Aviation Authorities
- n. **MIP:** Maintenance Implementation Procedures
- o. **MMEL:** Master Minimum Equipment List
- p. **PC:** Production Certificate
- q. **SFAR:** Special Federal Aviation Regulation
- r. **SIP:** Schedule of Implementation Procedures
- s. **STC:** Supplemental Type Certificate
- t. **TC:** Type Certificate
- u. **TSO:** Technical Standard Order
- v. **TSOA:** Technical Standard Order Authorization

## 6. GENERAL

a. **The FAA does not issue standard airworthiness certificates**, nor grant airworthiness approvals, for aeronautical products manufactured in a country with which the U.S. does not have a BAA or a BASA with IPA for the kinds of products concerned. The FAA must issue a type certificate prior to the issuance of an FAA standard airworthiness certificate.

b. **Information provided in this AC is intended to offer guidance** for the most common situations encountered in the design approval process leading to FAA type certification or letter of issuance of TSO design approval, and to FAA airworthiness certification or approval of civil aeronautical products to be imported to the U.S. Procedures and practices dealing with unique situations should be cleared in advance with the Aircraft Certification Service, FAA Headquarters, Washington, DC.

c. **Suggestions or comments for future revision of this AC** should be addressed to the Director, Aircraft Certification Service, Federal Aviation Administration, 800 Independence Avenue, S.W., Washington, DC 20591.



Elizabeth Erickson  
Director, Aircraft Certification Service

## CONTENTS

| <i>Paragraph</i>   | <i>Page</i> |
|--|-------------|
| <b>CHAPTER 1. INTRODUCTION</b>   | <b>1</b>    |
| 1-1. GENERAL   | 1           |
| 1-2. AIRCRAFT CERTIFICATION SERVICE'S INTERNATIONAL<br>VISION AND  | 1           |
| 1-3. FAA AIRCRAFT CERTIFICATION SERVICE ORGANIZATION   | 1           |
| 1-4. BILATERAL AGREEMENTS  | 3           |
| 1-5. HOW BILATERAL AGREEMENTS WORK   | 7           |
| 1-6. TECHNICAL ASSISTANCE AND COOPERATION<br>BETWEEN AUTHORITIES   | 8           |
| 1-7. AIRWORTHINESS SAFETY OBJECTIVES AND FUNCTIONS   | 8           |
| <b>CHAPTER 2. PRODUCT DESIGN APPROVAL PROCEDURES</b>   | <b>9</b>    |
| 2-1. GENERAL   | 9           |
| 2-2. AIRCRAFT, AIRCRAFT ENGINES, PROPELLERS  | 10          |
| 2-3. TYPE CERTIFICATION PROCEDURES   | 12          |
| 2-4. TC AMENDMENTS AND STC'S   | 23          |
| 2-5. ACTIONS TO TRANSFER, SURRENDER, OR REVOKE AN FAA TYPE<br>CERTIFICATE                                      | 23          |
| 2-6. DESIGN APPROVAL PROCEDURES FOR APPLIANCES -- FAA LETTER<br>OF TSO DESIGN APPROVAL                         | 24          |
| 2-7. LETTER OF PARTS DESIGN APPROVAL [RESERVED]  | 25          |
| FIGURE 2-1. EXAMPLES OF TECHNICAL DATA, BY PRODUCT,<br>NORMALLY REQUESTED BY THE FAA FOR TYPE<br>CERTIFICATION | 26          |
| FIGURE 2-2. EXAMPLES OF TECHNICAL DATA NORMALLY REQUIRED<br>BY THE FAA FOR SUPPLEMENTAL TYPE CERTIFICATION     | 27          |
| <b>CHAPTER 3. AIRWORTHINESS APPROVAL OF IMPORTED PRODUCTS</b>  | <b>29</b>   |
| 3-1. GENERAL   | 29          |
| 3-2. AIRCRAFT  | 30          |
| 3-3. AIRCRAFT ENGINES, PROPELLERS, MATERIALS, PARTS AND<br>APPLIANCES (RELATED PRODUCTS)                       | 35          |
| 3-4. REBUILT PRODUCTS  | 37          |
| 3-5. SPECIAL MAINTENANCE RECORDS CONSIDERATION   | 37          |
| 3-6.-3-9. [RESERVED]   | 37          |



| <b>Paragraph</b>  | <b>Page</b>      |
|---|------------------|
| <b>CHAPTER 4. PRODUCTION APPROVALS</b>  | <b>39</b>        |
| 4-1. GENERAL  | 39               |
| 4-2. MANUFACTURING LIMITATIONS RELATED TO<br>A BILATERAL AGREEMENT                              | 39               |
| 4-3. EXTENSIONS OF FAA PRODUCTION APPROVALS TO COUNTRIES<br>OUTSIDE THE U.S.                    | 40               |
| 4-4. PRODUCTION UNDER LICENSE TO A U.S. APPROVAL HOLDER   | 40               |
| 4-5. CAA SURVEILLANCE ASSISTANCE ON BEHALF OF THE FAA   | 40               |
| <b>CHAPTER 5. CONTINUED AIRWORTHINESS</b>   | <b>43</b>        |
| 5.1. GENERAL  | 43               |
| 5.2. CONTINUED AIRWORTHINESS DOCUMENTS  | 43               |
| 5.3. NOTIFICATION OF UNSAFE CONDITION AND MANDATORY<br>CONTINUING AIRWORTHINESS ACTIONS         | 44               |
| 5-4. DESIGN CHANGES   | 45               |
| 5.5. APPROVAL OF DESIGN DATA USED TO SUPPORT REPAIRS  | 45               |
| <b>APPENDIX 1. AIRCRAFT CERTIFICATION SERVICE</b>   | <b>(1 page)</b>  |
| <b>APPENDIX 2. ACCOUNTABLE FAA DIRECTORATES</b>   | <b>(2 pages)</b> |
| <b>APPENDIX 3. BILATERAL AGREEMENTS RELATED<br/>TO AIRWORTHINESS</b>                            | <b>(3 pages)</b> |
| <b>APPENDIX 4. SUMMARY OF PRODUCTS ELEIGIBLE FOR<br/>U.S. IMPORT UNDER BILATERAL AGREEMENTS</b> | <b>(5 pages)</b> |

## CHAPTER 1. INTRODUCTION

**1-1. GENERAL.** Aircraft airworthiness certification in the U.S. is a public safety function performed by the FAA with the purpose of ensuring the safety and environmental acceptability of U.S.-registered civil aircraft operating in air commerce. A U.S. statute--49, U.S.C. 106(g)--sets forth the duties and powers of the FAA Administrator in the safety regulation of civil aeronautics, including airworthiness certification of civil aeronautical products.

a. **Title 49 U.S.C. 44701(a)** charges the FAA Administrator with prescribing and revising minimum standards required in the interest of safety for appliances and for the design, material, construction, quality of work, and performance of aircraft, aircraft engines, and propellers. The U.S. airworthiness standards set forth by the FAA within 14 CFR, subchapter C are promulgated to implement this statute.

b. **Title 49 U.S.C. 44711(a)(1)** makes it unlawful for any person to operate in air commerce any U.S. registered civil aircraft for which there is not an airworthiness certificate currently in effect, or in violation of the terms of that airworthiness certificate.

c. **Title 49 U.S.C. 44704** specifies and defines the FAA Administrator's role in establishing requirements and issuing Type Certificates, Supplemental Type Certificates, Production Certificates, and Airworthiness Certificates. Additional information about these certificates can be found in Chapters 2, 3, and 4 of this Advisory Circular (AC).

**1-2. AIRCRAFT CERTIFICATION SERVICE'S INTERNATIONAL VISION AND MISSION.** The Aircraft Certification Service's International Vision is that of a global network of airworthiness authorities working cooperatively to promote the highest level of public confidence in the safety of the international air transportation system with the lowest practicable regulatory burden to that system. Its mission is working in partnership with the global aviation community to continuously improve the safety of the international air transportation system and achieve international harmonization of aircraft certification standards, practices, and procedures. Bilateral agreements facilitate cooperation between the FAA and its partner aviation authorities, and minimize duplicative certification activities related to the import and export of aeronautical products.

### **1-3. FAA AIRCRAFT CERTIFICATION SERVICE ORGANIZATION**

a. **The FAA Aircraft Certification Service organizational structure** is shown in appendix 1.

b. **Four Aircraft Certification Directorates** have been established to develop and ensure the standard application of technical policies in the type certification of

particular kinds of products. These directorates and assigned product responsibilities are as follows:

(1) **Small Airplane Directorate (ACE-100)** in Kansas City, Missouri, responsible for regulations and policy pertaining to: a) normal, utility, and acrobatic category airplanes weighing 12,500 lbs. or less and having seating configurations, excluding pilot seats, of 9 seats or fewer, b) commuter category, (propeller driven, multi-engine) airplanes weighing 19,000 lbs. or less, with seating configurations, excluding pilot seats, of 19 seats or fewer; c) manned free balloons, and d) special classes of small aircraft, including gliders, primary category airplanes, and airships (14 CFR parts 23 and 31).

(2) **Transport Airplane Directorate (ANM-100)** in Renton, Washington, responsible for regulations and policy pertaining to all transport category airplanes (14 CFR part 25).

(3) **Rotorcraft Directorate (ASW-100)** in Fort Worth, Texas, responsible for regulations and policy for normal and transport category rotorcraft (14 CFR parts 27 and 29).

(4) **Engine and Propeller Directorate (ANE-100)** in Burlington, Massachusetts, responsible for regulations and policy for all aircraft engines, propellers, and auxiliary power units (14 CFR parts 33 and 35).

The addresses of these Directorates are provided in appendix 2. Aircraft certification tasks within a particular geographic area are normally handled by an Aircraft Certification Office (ACO) that reports to one of the Aircraft Certification Directorates.

c. **The Aircraft Engineering Division (AIR-100) and the Production and Airworthiness Certification Division (AIR-200)** in Washington, DC, develop and oversee standard application of general type, production, airworthiness certification, and continued airworthiness policies (e.g., 14 CFR parts 21, 39, and certain provisions of 183), including those related to implementation of Bilateral Airworthiness Agreements and the airworthiness provisions of Bilateral Aviation Safety Agreements. The Aircraft Engineering Division (AIR-100) also develops and oversees standard application of technical policies concerning the approval of appliances covered by a Technical Standard Order (TSO).

d. **The Brussels Aircraft Certification Staff (AEU-100)** located in Brussels, Belgium, provide support in Europe, Africa and the Middle East, to the Directorates and Divisions, the Flight Standards Service, foreign civil airworthiness authorities, and U.S. and foreign manufacturers. The staff deals with matters concerning the import and export of aeronautical products and their continued airworthiness. The staff consists of technical representatives from the four Directorates, the two Washington Divisions (AIR-100, AIR-200), and a technical liaison to Flight Standards.

e. **The International Airworthiness Programs Staff (AIR-4)** in Washington, DC, is responsible for policy guidance on Bilateral Airworthiness Agreements (BAA), Bilateral Aviation Safety Agreements (BASA), and other international airworthiness issues, programs, and procedures. A single International Airworthiness Program Staff member, APC-100, is located in Singapore and performs functions similar to those of the Brussels Aircraft Certification Staff.

f. **In addition to the organizations within the FAA's Aircraft Certification Service (AIR)**, four other FAA offices provide support for AIR's certification responsibilities.

(1) **The Office of Environment and Energy (AEE)** develops, recommends, and promulgates regulations establishing standards for aircraft noise, and regulations for fuel venting and exhaust emissions for turbine engine powered airplanes.

(2) **The Flight Standards Service (AFS)**, through its Aircraft Evaluation Groups (AEG), evaluates operational and maintenance issues for new designs and in-service products. These AEG, located at the Aircraft Certification Directorates, integrate their activities with those of the Directorates during the type certification process.

(3) **The Office of International Aviation (AIA)**, through its three International Area Offices, provides liaison between the FAA and foreign governments.

(4) **The Office of the Chief Counsel (AGC)** reviews all agreements between the FAA and other authorities and provides interpretations of all regulations and procedures.

#### **1-4. BILATERAL AGREEMENTS**

a. **Purpose.** Bilateral agreements are cooperative agreements between the U.S. and the government of a foreign country for their mutual benefit. The FAA's Aircraft Certification Service has responsibility under two kinds of bilateral agreements -- Bilateral Airworthiness Agreements and Bilateral Aviation Safety Agreements with Implementation Procedures for Airworthiness. Both agreements are based on a high degree of mutual confidence in the technical competence and regulatory capability of the aviation authority of the exporting country for performing aircraft certification functions within the scope of the agreement.

#### **b. Bilateral Airworthiness Agreement.**

(1) **A Bilateral Airworthiness Agreement (BAA)** is an executive agreement between the U.S. and a foreign country that has a competent civil airworthiness authority and an aeronautical product manufacturing industry. A BAA is not a trade agreement. Instead, it is a technical agreement concerning the performance of airworthiness certification functions. BAA's vary in scope, but all provide that "... the importing State shall give the same validity to the certification made by (the competent

aeronautical authority of the exporting State) as if the certification had been made by its (the importing country's) own competent aeronautical authority in accordance with its own applicable laws, regulations, and requirements." One condition common to all of these agreements permits the importing State to prescribe additional technical conditions "... which the importing State finds necessary to ensure that the product meets a level of safety equivalent to that provided by its applicable laws, regulations, and requirements which would be effective for a similar product produced in the importing State." The U.S. concluded 27 BAA's with foreign governments from 1938 through 1991. Twenty-two current BAA's consist only of an Executive Agreement negotiated and concluded by the U.S. Department of State. Three BAA's (with Argentina, China, and Indonesia) consist of an Executive Agreement and a Schedule of Implementation Procedures (SIP). Because modifying a BAA can be cumbersome, the U.S. has established a new, more flexible format, a Bilateral Aviation Safety Agreement, discussed below.

**(2) Except for Canada, the BAA's between the U.S. and other countries do not address FAA acceptance of maintenance work** performed outside the U.S. This AC, therefore, does not address such maintenance on U.S.-registered aircraft or on products to be installed on U.S.-registered aircraft. Separate maintenance agreements (Maintenance Implementation Procedures) with Germany, France, and Ireland have been concluded as of August 2000. Contact the Continuous Airworthiness Maintenance Division, Flight Standards Service, for more information.)

### **c. Bilateral Aviation Safety Agreement.**

**(1) In order to facilitate the FAA's need** to include additional aviation safety areas in a bilateral agreement, the U.S. has established a new format that separates the agreement to cooperate in the performance of civil aviation responsibilities from the technical procedures which implement that agreement. This format, called a Bilateral Aviation Safety Agreement (BASA), consists of an Executive Agreement, which is similar for all countries, and one or more Implementation Procedures (e.g., for airworthiness, maintenance, and flight simulators). Like a BAA, a BASA provides for technical cooperation between the FAA and its counterpart aircraft certifying authority, and, like a BAA, a BASA with airworthiness implementation procedures is intended to facilitate reciprocal airworthiness certification of civil aeronautical products imported or exported between the two signatory countries. A BASA, however, provides more flexibility than does a BAA and may include other procedures besides airworthiness.

**(2) Countries are candidates for a BASA** with the United States only if a determination has been made that its aviation regulatory system meets ICAO standards (i.e., Category 1 of FAA's International Aviation Safety Assessment Program).

**(3) The signatories of the Executive Agreement** are the Department of State and its foreign ministry counterpart, while the signatories of the Implementation Procedures (IP) are the FAA and its counterpart civil aviation authority. The FAA and

its counterpart can modify or add IP's as needed without changing the Executive Agreement.

**(4) Appendix 3 lists the countries with which the U.S. has established bilateral agreements**, the type of the agreement (BAA or BASA), and the scope (i.e., products eligible for U.S. acceptance) of the agreement. Because the products eligible for U.S. import can vary from agreement to agreement, the provisions of a bilateral agreement with a particular country should be carefully reviewed. The texts of BAA's and BASA's with IPA's are available on the Internet at:

[www.faa.gov/avr/air/air4/4home.htm](http://www.faa.gov/avr/air/air4/4home.htm).

**d. Technical Assessment Process.** Before recommending a new agreement related to airworthiness, the FAA conducts a technical assessment of the certification system in the candidate BASA partner country. This assessment, which is very comprehensive, typically lasts between two and seven years. The assessment is conducted on a cost-reimbursable basis. The objective of the technical assessment is to determine whether the certification system in the BASA partner country is sufficiently comparable to the U.S. system to ensure similar results.

**(1) Areas of assessment:**

**(a) National Legislation:** The FAA reviews the scope and provisions of the partner country's aviation regulations *vis a vis* the country's legislation.

**(b) Mission/Mission Priorities:** The FAA reviews the mission and scope of the counterpart authority's work program.

**(c) Organization:** The FAA examines the organizational structure of the partner country's aviation authority, its delegations of authority, the location of its offices and its staffing, and its plans and mechanisms for ongoing improvement.

**(d) Personnel:** The FAA examines the roles, responsibility, and authority of the CAA's personnel and the delegation of these roles and responsibilities to others. The FAA also examines the personnel's experience and training (including technical and on-the-job training).

**(e) Approval Documents:** The FAA examines the CAA's approval documents, including design approvals, production quality assurance system approvals, airworthiness certifications, continued airworthiness documents, and delegation of responsibility documents.

**(f) Standards/Policies:** The FAA reviews procedural and regulation/rulemaking processes of the authority. It examines current policies, operating orders, and guidance material and reviews certification procedures. The FAA also reviews the authority's design standards and production and airworthiness regulations.

**(g) Design, Production and Airworthiness Certification Processes:**

The FAA reviews in detail the CAA's design, production, and airworthiness certification processes.

**(h) Certificate Management Activities:**

The FAA examines the CAA's monitoring activities for certificate holders, its continued airworthiness programs, and how the authority revises and amends approvals.

**(i) Enforcement:**

The FAA reviews the CAA's enforcement activities, including its ability to revoke or suspend certificates, its authority to assess monetary damages, its system for determining administrative penalties, and its prohibitions on falsification of data.

**(j) Communications:**

As part of the assessment, the FAA reviews the CAA's internal coordination process, how the CAA coordinates with other organizations, and the means by which it communicates with manufacturers, operators, and other certificate holders.

**(k) Environment:**

The FAA reviews the relationship between the CAA and other organizations, including the partner country's aviation industry.

**(2) Phases of Assessment:**

The technical assessment process for a new agreement normally consists of four phases:

**(a) Familiarization.**

The purpose of the familiarization phase is to conduct a preliminary technical evaluation and become familiar with the CAA's aircraft certification system. This enables the FAA to identify aircraft certification areas where the FAA may need to provide technical assistance and training in the application of airworthiness standards, practices, and procedures for the aeronautical products designed and manufactured for export to the U.S. under a BASA.

**(b) Review.**

During this phase, the FAA conducts a more detailed review of the CAA's aircraft certification system, especially those areas that differ from those of the U.S. During this phase, the FAA may review engineering data for any proposed shadow certification product.

**(c) Shadow Certification.**

This is the most critical phase of the technical assessment program. During this phase, the FAA's assessment goes beyond a document review. The FAA works side-by-side with the CAA on an actual certification project to assess how well the CAA understands FAA requirements and could apply them, on behalf of the FAA, under a BASA. The FAA monitors tests, reviews certification data, and observes meetings with the certification applicant. The FAA also determines how well the proposed design complies with U.S. requirements.

**(d) Implementation Procedures for Airworthiness (IPA) Negotiation.**

Following the successful completion of a technical assessment, and after a BASA Executive Agreement has been proposed to the foreign government by the U.S. Department of State, the FAA and the CAA co-develop the details of the Implementation Procedures for Airworthiness (IPA). A BASA IPA may include procedures for the reciprocal acceptance of design approvals, production and surveillance oversight, continued airworthiness activities, design change approvals, and export airworthiness approvals. The scope of the IPA can be modified over time (e.g., expanded to cover additional activities) or changed and/or canceled without affecting the Executive Agreement or other IP's.

**1-5. HOW BILATERAL AGREEMENTS WORK**

**a. General.** Title 49 U.S.C. 44704 requires the FAA to make certain "findings" or determinations of compliance to U.S. airworthiness standards before issuing a type certificate, production certificate, or airworthiness certificate. In the case of a type certificate, the FAA is required to find that the design of the product meets the U.S. airworthiness standards applicable to the product. 49 U.S.C. 44704(d) requires the FAA to determine that a product conforms to a design previously approved by the FAA, and that it is in a condition for safe operation before issuing a U.S. airworthiness certificate for that product. The statute permits the FAA Administrator to exercise discretion in how these findings will be made, the level of direct FAA involvement necessary, and what constitutes competent evidence for making the required findings.

**b. Findings Process under Bilateral Agreements.** The FAA makes its findings for the airworthiness certification, approval, or acceptance of civil aeronautical products imported to the U.S. by working through, and in cooperation with, the CAA of the exporting country. Generally, the FAA predicates its findings on statements from the exporting authority which certifies to the FAA that the design and performance of the product meet the U.S. or equivalent airworthiness standards; that the exported product (including complete aircraft) conforms in construction and manufacturing processes to the approved design; and, at the time of export certification by the exporting authority, that the product is determined by the exporting authority to be in a condition for safe operation.

**c. Maintenance of the Bilateral Relationship.** Once an agreement is negotiated, sustaining the relationship is equally important to the FAA. FAA field offices interact with other CAA's on daily activities such as validation projects, export activities, and harmonization work. BASA IPA's commit the FAA to meet periodically with its counterpart authority to review the IPA and any certification system changes. The FAA wants to ensure that there is a common understanding of each other's requirements. In addition, the FAA and its partners conduct visits as needed to ensure both authorities meet the commitments they have made in their bilateral agreements. Each bilateral partner country has been assigned to an FAA Directorate for this enhanced formal cooperation. These country assignments are listed in appendix 2.



## **1.6 TECHNICAL ASSISTANCE AND COOPERATION BETWEEN AUTHORITIES**

**a. The global manufacturing environment creates challenges** for the FAA and other civil aviation authorities in carrying out their regulatory duties around the world. Upon request and after mutual agreement, the FAA and the CAA may provide technical assistance to each other when significant activities are conducted in either country. These technical assistance activities help avoid any undue burden imposed on either authority. Types of assistance may include, but are not limited to, determination of compliance (e.g., witnessing tests, performing inspections, reviewing reports, obtaining data) and surveillance and oversight (e.g., conducting inspections on production parts, conducting investigations of service difficulties).

**b. Under the U.S. Freedom of Information Act (FOIA)**, information the FAA has in its possession must be disclosed unless a FOIA exemption applies to that information. Exemptions include proprietary data such as trade secrets and financial or commercial information. As bilateral partners, the FAA and the CAA agree that they will not release proprietary data obtained from either authority to anyone other than an FAA or CAA employee without written consent of the design approval holder or other data submitter.

**c. Upon request, the FAA and the CAA cooperate by providing information of** service incidents, accidents, and suspected unapproved parts involving civil aeronautical products imported under their Implementation Procedures.

**1-7. AIRWORTHINESS SAFETY OBJECTIVES AND FUNCTIONS.** The procedures and practices applied by the FAA for the airworthiness certification of civil aeronautical products to be imported to the U.S. are intended to achieve four fundamental objectives, namely that:

**a. The design and performance of the product** meet the applicable U.S. airworthiness and environmental standards or standards determined by the FAA to be equivalent;

**b. Each particular civil aeronautical product** presented for U.S. airworthiness certification, approval, or acceptance for installation on a U.S. type certificated and U.S.-registered aircraft conforms to an FAA-approved design and is in a condition for safe operation;

**c. The companies responsible and the CAA** having regulatory responsibility for product design integrity and manufacturing quality control are clearly defined and have adequate technical capability, so as to ensure that safety issues which may arise with the product in service will be satisfactorily resolved in a timely manner; and

**d. The FAA can meet its regulatory responsibilities** under Title 49 U.S.C. in administering applicable regulatory requirements of 14 CFR without undue burden.

## CHAPTER 2. PRODUCT DESIGN APPROVAL PROCEDURES

### 2-1. GENERAL

**a. Requirement for a Bilateral Agreement.** Product design approvals will not be granted to an applicant located in a country with which the U.S. has not concluded a bilateral agreement for the export and import airworthiness certification of such products (i.e., a BAA or a BASA).

**b. Categories of Design Approvals.** The FAA grants design approvals of civil aeronautical products to be imported to the U.S. in the following forms.

(1) **Type Certificates (TC)**, including type certificate amendments, are issued for the design approval of aircraft, aircraft engines, and propellers.

(2) **Supplemental Type Certificates (STC)** are issued for approval of major changes to a type certificated design (aircraft, aircraft engines, and propellers) that are not great enough to require a new application for a type certificate. The holder of a type certificate usually has the type certificate amended for these purposes.

(3) **Letters of TSO design approval** are issued to approve the design of appliances to be manufactured outside the U.S., which meet the minimum performance standards of an FAA Technical Standard Order.

(4) **Letters of parts design approval** [reserved].

**c. Application Priority.** The FAA does not normally issue a type design approval for a product manufactured outside the U.S. (i.e., the state of design is other than the U.S.), unless the product is intended for use under U.S. registry or for operation by a U.S. operator under lease or charter. Approvals may be granted for engines, propellers, or appliances to be incorporated into the design of a U.S.-registered aircraft or U.S.-manufactured product. Foreign applicants for U.S. design approval should provide the FAA with evidence that the product will be imported into the U.S., or will be installed on a U.S.-registered or U.S.-manufactured product. This information, when provided at the time of application, will help the FAA to establish project priorities.

**d. References to FAA Airworthiness Regulations.** The FAA's procedural regulations for the design approval of products, including products imported to the U.S., are set forth in 14 CFR part 21 (part 21). Applicable airworthiness standards are set forth in:

(1) **14 CFR parts 21 through 35**, for various kinds of products.

(2) **A series of Technical Standard Orders (TSO)** identified in the current version of AC 20-110, *Index of Technical Standard Orders*, for articles (parts, materials, processes, or appliances).

(3) **14 CFR parts 21 and 36** for standards concerning aircraft noise.

(4) **14 CFR part 34** for standards concerning fuel venting and exhaust emissions for turbine engine powered airplanes.

**e. Relationship to International Civil Aviation Organization Airworthiness Standards.** ICAO has airworthiness standards for engines, propellers, aeroplanes, and helicopters, defined in Annex 8, *Airworthiness of Aircraft*. The references listed in 2-1(d) above meet or exceed these ICAO requirements, except where differences have been filed with ICAO. ICAO also has aircraft noise, fuel venting, and exhaust emissions standards defined in Annex 16, Volumes I and II.

**f. Applicability of U.S. Design Approvals.** An FAA type design approval for a product (e.g., aircraft) is required:

(1) **As a prerequisite** for the issuance of a U.S. standard or certain types (i.e., primary, limited, and restricted) of special airworthiness certificates;

(2) **To permit a non-U.S.-registered aircraft** to be operated under lease or charter by a U.S.-certificated air carrier or commercial operator under parts 121 or 135; or

(3) **To permit certain products** (e.g., engines, appliances) to be installed on an aircraft having a U.S. standard airworthiness certificate.

## **2-2. AIRCRAFT, AIRCRAFT ENGINES, PROPELLERS**

### **a. General Airworthiness Requirements.**

(1) **Under 49 U.S.C. 44711(a)(1)**, any civil aircraft registered in the U.S. must have a valid airworthiness certificate before it can be operated in air commerce. Under 49 U.S.C. 44704(d), a civil aircraft (including its engines, propellers, and installed appliances) must conform to an FAA-approved type design and be found in a condition for safe operation to be eligible for a U.S. airworthiness certificate. Also under 49 U.S.C. 44704(d), a civil aircraft must be registered in the U.S. and appropriately marked (i.e., with a registration number) before it can receive a U.S. airworthiness certificate. These statutory requirements are reflected in 14 CFR parts 21 and 45.

(2) **Under 14 CFR 21.181(a)(1)**, a standard U.S. airworthiness certificate on an aircraft remains valid as long as maintenance/preventive maintenance and alterations are performed in accordance with 14 CFR parts 43 and 91, and the aircraft

continues to be registered in the U.S. Section 43.13 requires, in effect, continuing conformity to the aircraft's FAA-approved type design or properly altered configuration. Therefore, all replacement engines, propellers, materials, parts, and appliances installed on a U.S.-registered civil aircraft must be acceptable to the FAA. These requirements apply equally to U.S.-registered aircraft operated outside the U.S. and to aircraft operated within the U.S.

**(3) Many civil aeronautical aircraft registered outside the U.S.** (including foreign aircraft manufactured outside the U.S.) are subsequently returned to the U.S. Design changes or repairs and modifications made on such an aircraft while that aircraft was operated on a registry of another country either must be removed and the aircraft returned to FAA-approved standards, or the changes must be approved by the FAA before a U.S. standard airworthiness certificate can be issued. Complete maintenance records, including those required by 14 CFR 91.417, must be provided and other maintenance requirements of 14 CFR parts 121 and 135 may apply which are outside the scope of this AC. Chapter 3 discusses airworthiness acceptance procedures for such aircraft.

**(4) An FAA design approval (e.g., a U.S. type certificate)** must be issued as a prerequisite for obtaining a production approval (e.g., production certificate). However, an FAA production approval is not a prerequisite for issuing a U.S. airworthiness certificate or approval. As explained in Chapter 4, the FAA does not usually issue production approvals to companies located outside of the U.S., but may extend production certificates to a facility located outside the U.S. under certain circumstances.

#### **b. U.S. Operations**

**(1) An export certificate of airworthiness**, issued by the airworthiness authority of an exporting country to facilitate U.S. airworthiness certification, does not constitute an authorization to operate an aircraft and, therefore, does not satisfy the requirement for a U.S. airworthiness certificate.

**(2) A U.S. air carrier or commercial operator**, certificated to operate under 14 CFR parts 121 or 135, may operate an aircraft under lease or charter that is not registered in the U.S., provided certain requirements are met, including establishing that the aircraft conforms to a type design approved by the FAA. The requirements that must be met in order for such aircraft to be operated are contained in 14 CFR 121.153 and 135.25.

## **2-3. TYPE CERTIFICATION PROCEDURES**

### **a. General**

(1) **U.S. airworthiness standards** for normal, utility, acrobatic, and commuter category airplanes are codified in 14 CFR part 23; standards for transport category airplanes are in 14 CFR part 25; standards for normal category rotorcraft are in 14 CFR part 27; standards for transport category rotorcraft are in 14 CFR part 29; standards for manned free balloons are in 14 CFR part 31; standards for aircraft engines are in 14 CFR part 33; and standards for propellers are in 14 CFR part 35.

(a) **For certain special classes of aircraft** for which standards have not been issued by the FAA under 14 CFR Subchapter C, such as gliders, airships, and nonconventional aircraft, the applicable requirements will be those portions of parts 23, 25, 27, 29, 31, 33, and 35 found by the Administrator to be appropriate for the aircraft and applicable to a specific type design, or such airworthiness criteria as the Administrator may find provides an equivalent level of safety to those parts. (See 14 CFR 21.17(b).)

(b) **14 CFR 21.24** provides for the issuance of type certificates for primary category aircraft manufactured either in the U.S. or manufactured in a country with which the U.S. has a bilateral agreement and imported to the U.S.

(2) **14 CFR part 21 provides for issuance of type certificates** under either the procedures of 14 CFR 21.21 for approval of U.S.-manufactured products, or 14 CFR 21.29 for approval of products to be imported to the U.S. The procedures for issuance of these type certificates are different; once issued, however, both type certificates have equal status and validity. The major difference in these procedures is how FAA's findings are made. Under 14 CFR 21.21, the FAA or its designees determine that the design meets the necessary requirements. Under 14 CFR 21.29, the FAA's findings are generally based on technical evaluations, inspections, and certifications made for the FAA by the exporting CAA of the applicant's country.

(3) **Under 14 CFR 21.29, a type certificate may be issued** for an aircraft, engine, or propeller manufactured in a foreign country with which the U.S. has a bilateral agreement for the acceptance of these products for import (and that is to be imported into the U.S.) if:

(a) **The original exporting CAA (where the product was manufactured) certifies** to the FAA that the product has been examined, tested, and found to meet the applicable airworthiness, noise, fuel venting, and exhaust emissions standards established by the FAA or by the exporting CAA (with any other noise, fuel venting and exhaust emission requirements prescribed by the FAA Administrator) for the product;

**(b) The applicant has submitted the required technical data** concerning aircraft noise and airworthiness;

**(c) The manuals, placards, listings, and instrument markings** required by applicable airworthiness requirements are presented in the English language; and

**(d) The applicant has submitted the technical data** required by the FAA (reference Figure 2-1).

**(4) The applicant must show** that the airworthiness and environmental requirements applied by the exporting CAA for U.S. certification will provide compliance with the U.S. type certification basis.

**(5) Design approvals for major changes and alterations** (including model changes) to products will usually be issued in the form of an amendment to the existing TC (or letters of TSO design approval) or as an STC (see Section 2-4).

**(6) Minor changes, product design improvements, or service instructions** (e.g., service bulletins, structural repair manuals, supplemental structural inspection documents) other than those described in paragraph 2-3 (a) (4) will be considered FAA approved, if approved by the exporting CAA under its normal procedures. However, service bulletins or other similar instructions classified as "mandatory" by the exporting CAA are not mandatory in the U.S. regulatory system unless required by an FAA AD.

**(7) For products imported from a JAA member country**, the FAA/JAA Type Validation Principles should be followed for FAA type certification.

**b. Primary Category Aircraft.** Under 14 CFR 21.24, a type certificate may be issued for a primary category aircraft manufactured in a foreign country with which the U.S. has a bilateral agreement and from which the aircraft is to be imported into the U.S. if the CAA of the exporting country certifies to the FAA that:

**(1) The applicant has completed the engineering analysis necessary** to demonstrate compliance with the applicable airworthiness requirements;

**(2) The applicant has conducted appropriate flight, structural, propulsion, and systems tests** necessary to show that the aircraft, its components, and its equipment are reliable and function properly;

**(3) The type design complies** with the airworthiness standards and noise requirements established for the aircraft under 14 CFR 21.17(f);

**(4) No feature or characteristic makes the aircraft unsafe** for its intended use;

**(5) The required manuals, placards, listings, instrument markings, and documents** are submitted in English; and

**(6) Other requirements** as established by 14 CFR 21.24 (a) and (b) are met.

**c. Application for FAA Type Certification**

**(1) An application for a U.S. TC**, in accordance with 14 CFR 21.15, should be sent to the exporting CAA. Applications may be submitted for products that already were issued an exporting CAA TC, or for products where application for type certification has been made to that exporting CAA. The exporting CAA should ensure the application to the FAA has the following information:

**(a) The exporting CAA's Type Certificate and TC Data Sheet**, if available, a definition of the national airworthiness and environmental standards upon which the authority's design approval was (or is to be) based, and the U.S. airworthiness and environmental standards the authority believes to be satisfied by its own standards.

**(b) A description of all novel or unusual design features** known to the applicant or the exporting CAA at the time of application which might necessitate issuance of FAA special conditions under 14 CFR 21.16 or 21.101, or which might require a special review of acceptable means of compliance;

**(c) All known or expected exemptions or equivalent level of safety findings** relative to the exporting CAA's national standards for design approval that might affect compliance with the applicable U.S. airworthiness and environmental standards.

**(d) A planning date for FAA type certification**; and

**(e) Available information on U.S. market potential**, including specific customers and U.S. content of the product, if known.

**(2) Except for Canadian products**, the exporting CAA should forward applications to the Aircraft Certification Service Directorates as follows:

**(a) Small and commuter category airplanes, manned free balloons, and special classes of small aircraft, including gliders, primary category airplanes, and airships**, to the Small Airplane Directorate in Kansas City, Missouri;

**(b) Transport category airplanes** to the Transport Airplane Directorate in Renton, Washington;

**(c) Normal and transport category rotorcraft** to the Rotorcraft Directorate in Fort Worth, Texas; and

**(d) Engines and propellers** to the Engine and Propeller Directorate in Burlington, Massachusetts. Appendix 2 contains a list of addresses for the FAA Aircraft Certification Service Directorates. NOTE: For Canadian products, see the Canadian IPA.

**(3) If the application is for a product in a category not previously certificated** by the exporting CAA, or the product is of a level of complexity that has not been previously certificated by the exporting CAA, the exporting CAA should notify the FAA of that fact. This notification should be made as soon as the exporting CAA becomes aware of this type of pending application, so that the FAA may plan the scope of its validation program.

**d. FAA Technical Involvement.** In accordance with the bilateral agreement, the FAA's technical involvement in the design approval (particularly, the issuance of type certificate and type certificate amendments) is intended to accomplish the following functions:

**(1) To provide for FAA familiarity** with the general design, performance, and operational characteristics of the product for which U.S. type certification or design approval is sought, for the purpose of establishing the U.S. certification basis to the extent necessary, and for FAA to meet its post-certification responsibilities after the product enters service on the U.S. registry;

**(2) To establish the U.S. type certification basis** and the means of compliance for the product under application by determining the U.S. airworthiness and environmental standards that would be applied to a similar product if it were to be produced in the U.S.;

**(3) To understand the airworthiness certification system** (including the airworthiness and environmental standards, policies, and certification practices) applied by the exporting authority in their domestic certification of the product. This will include an understanding of the level of exporting CAA involvement with prototype conformity inspections, tests, and flight programs;

**(4) To compare the airworthiness and environmental standards, policies, and practices** applied by the exporting authority in their domestic certification with the U.S. type certification basis or design requirements and certification policies and practices;

**(5) To define and explain any additional technical conditions** that should be met for FAA certification to provide for equivalency with the applicable U.S. airworthiness and environmental standards;

**(6) To maintain sufficient liaison and technical dialogue** with the exporting authority to ensure that technical questions and issues which might affect U.S.



certification of the product are identified and resolved between the FAA and the exporting authority as early as possible; and

**(7) To provide for effective management of the certification project** and for the most cost-effective utilization of FAA's resources on the project.

**e. FAA Project Management.** The FAA Directorate, upon receipt of an application for a type certificate will establish where project management responsibility will reside. The FAA will give high priority to the establishment of the project management office and notification to the exporting authority. The FAA will notify the exporting CAA of the Project Manager.

**f. Communications.** An applicant for an FAA type certificate may request technical meetings or may correspond directly with the FAA to discuss and resolve technical issues that may arise in the certification program. However, because the FAA relies heavily on the exporting CAA's understanding of FAA's position on such issues, it is imperative that the exporting CAA is included in any such meetings or correspondence. The FAA will normally seek the exporting CAA's opinions before significant issues are resolved and may decline to meet with the applicant to discuss and resolve technical issues unless the exporting CAA is adequately represented at the meeting. Similarly, correspondence will usually be answered through, coordinated with, or copied to the exporting CAA.

**g. Familiarization Briefing.**

**(1) The FAA will notify the exporting CAA** prior to each familiarization meeting. As part of this notification, the FAA will identify special requirements and issues related to the specific aeronautical product that must be addressed by the exporting CAA and the foreign applicant. The exporting CAA should acknowledge FAA's notification and advise FAA whether it is able to support an FAA validation team during the requested period.

**(2) The exporting CAA should arrange a familiarization meeting** with the FAA, the exporting CAA, and the applicant to discuss the product design, including all novel or unusual features of the product, the validation process, and the approved or proposed domestic exporting CAA certification basis. The meeting should also identify any operational safety issues associated with the product. For products with a prior service history, but not previously type certificated by the FAA, the applicant and the exporting CAA should plan to brief the FAA on the product's service history, including corrective measures taken to preclude reoccurrence of incidents or accidents.

**(3) The meeting should be held** at a location mutually agreeable to the exporting CAA, the FAA, and the applicant.

**(4) At this meeting the FAA will work to establish the U.S. type certification basis** and the means of compliance for the product under application by

determining the U.S. airworthiness and environmental standards that would be applied to a similar product if it were to be produced in the U.S. The extent to which these activities are accomplished at the meeting will depend on the FAA's familiarity with the product and applicant, the applicant's familiarity with the FAA's process and, in general, the overall preparedness of all parties.

**(5) The composition of the Project Certification Team** should be addressed at the familiarization meeting. The composition of the team should include specialist representation that reflects the technology level of the certification project. The FAA and the exporting CAA will mutually agree on a plan to ensure adequate compliance finding capability.

**(6) For engines, propellers, and less complex aircraft projects,** technical familiarization may be streamlined if agreed by both authorities.

#### **h. Additional Technical Meetings**

**(1) In addition to the initial familiarization meeting,** other technical meetings may be necessary to ensure that any additional technical conditions that have been communicated to the exporting CAA are well understood, and that any outstanding technical issues are resolved. These meetings should be held as early as possible in the certification process in order to avoid last minute design changes. All technical meetings will normally be arranged through the exporting CAA and will normally have both authorities' representatives in attendance.

**(2) Early in the program,** based on the known design and information presented in the familiarization and technical meetings, the FAA will identify the areas in which further activity will be required (e.g. required data, reports, tests and test witnessing, areas of concern or special emphasis). The FAA's anticipated level of activity will be documented in writing. This agreement may be revised if the initial design definition is incomplete or subsequent design changes are made.

**(3) During the type certification program** the FAA may request additional technical design data, may review the product, and may fly the product for familiarization purposes. In addition, the FAA may request data or briefings on the design to advise the exporting CAA on acceptable means of compliance with the U.S. type certification basis.

#### **i. Establishment of the U.S. Type Certification Basis**

**(1) New type certificates.** The FAA certification basis is established for the product in accordance with 14 CFR part 21. The certification basis includes the applicable airworthiness standards, found in 14 CFR parts 23, 25, 27, 29, 31, 33, and 35, and environmental standards, found in 14 CFR parts 34 and 36. The date of application to the FAA determines the U.S. type certification basis, unless otherwise

provided in the applicable bilateral agreement. The applicable bilateral agreement should be consulted before establishing FAA's certification basis.

**(a) In certifying that an applicant's design** meets the requirements for a U.S. TC, the exporting CAA may find compliance with the:

**(i) Applicable U.S. airworthiness standards** in effect on the date of application for the U.S. TC and environmental standards in effect on the date of U.S. type certification; or

**(ii) The exporting CAA's domestic airworthiness and environmental standards** and all other airworthiness requirements the FAA may prescribe to provide a level of safety equivalent to the U.S. airworthiness standards in effect on the date of application for U.S. type certification, and environmental requirements the FAA may prescribe to provide noise, fuel venting, and exhaust emission levels that are no greater than those provided by the U.S. environmental standards in effect on the date of U.S. type certification.

**(b) If the foreign type certification basis precedes** the FAA certification basis, the exporting CAA must consider the U.S. regulatory changes that have occurred since the date of application for the exporting CAA's TC. In general, the FAA may require the applicant to comply with additional technical conditions in the interests of safety. These additional technical conditions identify important applicable regulatory differences between the requirements and regulations of the exporting CAA and those of the FAA. Such differences include those that have significant impact on airworthiness, design, operational limitations, and operating characteristics, and those that have significant differences in means of compliance. Additional technical conditions may include policies, special conditions, and mandatory airworthiness actions taken to correct unsafe conditions.

**(2) Additional requirements/special conditions.** The FAA will also review all novel and unusual design features for development of special conditions, if any. FAA special conditions are an integral part of the U.S. type certification basis.

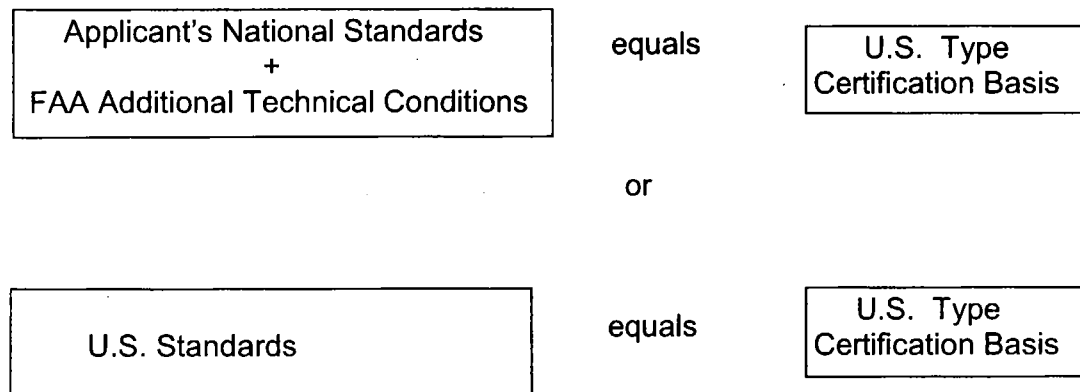
**(a) The FAA issues special conditions** under 14 CFR 21.16 and 21.101 if the FAA finds that the applicable U.S. airworthiness standards do not contain adequate or appropriate safety standards for an aircraft, aircraft engine, or propeller because of a novel or unusual design feature of the product. FAA special conditions are issued through the public rulemaking procedures of 14 CFR part 11 and contain such safety standards for the particular product as the FAA finds necessary to establish a level of safety equivalent to that established in the applicable FAA airworthiness standards. FAA special conditions issued for products exported to the U.S. are the same as would be issued for a similar product produced in the U.S.

**(b) The FAA will work closely with the exporting CAA** in the development of special conditions and processing of exemptions in order to provide the opportunity for the exporting CAA to coordinate, and the applicant to comment on the proposed special conditions. Such coordination will allow the FAA to benefit from the

technical expertise of the exporting CAA and allow the exporting CAA to better understand how to make a finding of compliance, if so requested by the FAA.

**(3) Environmental (Type) Certification Basis.** The regulatory basis for compliance with 14 CFR parts 34 and 36 is the effective amendment on the date of FAA certification. An applicant for a TC, amended TC, or STC should show that the product meets applicable airworthiness standards, special conditions, fuel venting and exhaust emission standards of 14 CFR part 34, and the noise standards of 14 CFR part 36.

**(4) Development of Additional Technical Conditions (ATC).** The FAA finding that the product meets the U.S. type certification basis will rely, to a great extent, on the exporting CAA's certification of compliance to FAA requirements. If the exporting CAA elects to certify compliance with its own national standards and additional FAA technical conditions, this choice should be established by the exporting CAA early in the project so that the necessary comparisons of national standards can be completed and the additional FAA technical conditions can be established. The diagram below illustrates how the U.S. type certification basis can be determined:



**(a) If the findings of compliance are to the applicable U.S. standards,** the FAA will not develop any ATC's.

**(b) If the findings of compliance are to the exporting CAA's standards,** the FAA may specify ATC's as a condition for FAA approval of the type design. These ATC's will account for:

**(i) Differences** in the basic airworthiness and environmental standards of the U.S. and the exporting state;

**(ii) Noncompliance** with the exporting CAA's airworthiness or environmental standards because of exemptions or equivalent safety findings granted by the exporting CAA for its own domestic certification (provided there is a similar U.S. requirement);

(iii) **Special conditions** issued by the FAA under 14 CFR 21.16 or 21.101 because of a novel or unusual design feature of the product that are not required in an equivalent manner by the exporting CAA's airworthiness standards;

(iv) **Mandatory airworthiness actions** (i.e., AD's) directed by the exporting CAA to correct unsafe conditions experienced during operation prior to application for FAA approval; and

(v) **Optional conditions** identified by the FAA to assist any eventual U.S. operator to comply with current U.S. operational or maintenance requirements.

(5) **Changes to type certificates.** The FAA certification basis for a change to a product is established in accordance with 14 CFR part 21.

(6) **Application period.** 14 CFR 21.17(c) specifies an application for type certification of a transport category aircraft is effective for 5 years and an application for any other type certificate is effective for 3 years. After that time period, compliance with later requirements may be necessary. In the case of certification of an imported product, these time periods may not be applicable if other provisions are included in a specific bilateral agreement. For example, where the imported product was certificated by the exporting CAA several years earlier, the certification basis may essentially be frozen at the original date of application in the exporting State if a bilateral agreement provides for this.

(7) **Project Updating.** Throughout the course of the project, the FAA will rely on the exporting CAA to advise them of the following developments:

(a) **Novel or unusual design features** that become apparent during design development that could necessitate: amendment of the U.S. type certification basis, the issuance of special conditions, or special discussions with the FAA on acceptable means of compliance;

(b) **Previously specified changes** to the exporting CAA's certification basis, to include exemptions, etc., that could alter the FAA's additional requirements or special conditions; and

(c) **The need for FAA equivalent safety findings** or exemptions from the U.S. type certification basis that may become apparent and are considered justified by the exporting CAA during design development.

#### **j. Data Submittal & Design Review**

(1) **Technical data varies** with the type and complexity of the product. Consequently, the project management office may request additional data to establish the U.S. type certification basis and to become familiar with unique design features or

manufacturing processes. The items listed in Figure 2-1 are examples of the technical data normally requested.

**(2) The applicant should submit data** to the exporting CAA for verification and transmittal to the FAA.

**k. Issue Papers.** An issue paper provides a means for the identification and resolution of significant technical, regulatory, and administrative issues that occur during the certification process. The FAA will coordinate all issue papers and changes to issue papers with the exporting CAA. Such coordination will expedite the timely and mutually acceptable resolution of certification issues.

## **I. Environmental Approval**

**(1) Environmental Testing and Approval Procedures.** The FAA is authorized to make findings of compliance to 14 CFR parts 34 and 36 based on FAA-witnessed tests conducted in accordance with FAA-approved test plans, and on FAA review and approval of all data and compliance demonstration reports submitted via the exporting CAA.

**(2) Environmental Testing and Approval Process.** The typical process for environmental testing and approvals should consist of the following actions:

**(a) The applicant should submit environmental** (noise, fuel venting, and exhaust emissions) compliance demonstration plans to the FAA for review, comment, and subsequent approval prior to undertaking U.S. environmental certification testing.

**(b) The FAA, before issuing an original type certificate** for an aircraft of any category, will assess the extent of noise abatement technology incorporated into the type design and determine whether additional noise reduction is achievable. The applicant should supply information and data as soon as possible after the application for type certification in each original type certification project and reflect noise reduction potentials that become evident during the design and certification process.

**(c) The FAA conducts an evaluation** of the measurement and analysis methods and practices, and data correction procedures of the applicant for aircraft noise certification under 14 CFR part 36, subparts B and H.

**(d) Aircraft noise test plans and engine exhaust emissions test plans** to be used for demonstrating U.S. environmental certification compliance should be submitted to the FAA for review and comment, and subsequent approval not less than 90 days prior to commencing testing.

**(e) Proposed equivalent procedures** to be used by the applicant during testing, data processing, data reduction, and data analysis should be specifically

identified to the FAA and approved in advance by the FAA as part of items I.(2)(a) and I.(2)(d) above.

**(f) FAA personnel or FAA designated engineering representatives** will witness compliance demonstration tests. Prior to the start of testing it is necessary to ensure the conformity of the test article (i.e., aircraft or engine configuration) to that identified in the FAA approved compliance demonstration test plans. Witnessing these tests is not delegated to the exporting CAA, unless specific bilateral agreement provisions have been implemented regarding environmental approvals.

**(g) The FAA will review and comment** on compliance demonstration reports. Approval of these reports will precede type certification approval.

**m. Final Certification Meeting/Issuance of the Type Certificate.** Upon issuance of its domestic TC and demonstrated compliance with the U.S. Type Certification basis, the exporting CAA should forward a certifying statement to the FAA, in accordance with 14 CFR 21.29(a)(1), as well as all additional requested materials. The FAA, upon receipt and review of the documents, will prepare the TC and TC Data Sheet and forward them to the exporting CAA for transmittal to the applicant. A final meeting will be necessary only if there are areas of further discussion or if the sharing of information would be beneficial.

**n. Evaluation of U. S. Operational and Maintenance Aspects.** The FAA has established Aircraft Evaluation Groups (AEGs) located at the product-accountable Directorates. The AEGs are responsible for the Operational and Maintenance aspects of the Type Certification process.

**(1) The AEG will conduct boards**, as appropriate, on the foreign country's products prior to their entry into U. S. operations. These Boards will be used to review: 1) the Maintenance Review Board (MRB) Report and associated Instructions for Continued Airworthiness (ICAW) documentation; 2) operational configuration, pilot training and licensing requirements; product maintainability; and 3) the formulation and approval of a Master Minimum Equipment List (MMEL). The AEG will be invited to participate in the familiarization meeting by the FAA Project Manager and will generate issue papers as appropriate to the type design. Compliance with AEG requirements for Instructions for Continued Airworthiness is required at the time of issuance of the product's first U.S. standard airworthiness certificate (see 14 CFR 21.50(b)).

**(2) The AEG will also review and make recommendations** concerning the acceptability of the Aircraft Flight Manual and maintenance manuals against U.S. operational requirements. These AEG activities are not part of the design approval process; however, AEG staff will integrate their activities to the maximum extent practicable with the design approval activities to ease the burden on all concerned. It is in the applicant's best interest to cooperate and work with the AEG, because this will, in turn, assist U.S. operators in meeting FAA operational requirements (under 14 CFR parts 91, 121, 135, etc.).

## **2-4. TC AMENDMENTS AND STC's**

a. The type certificate procedures and interrelationships described above also apply to TC Amendments and STC's (if included in a bilateral agreement). The basic design approval procedures for U.S. type certification should be used for STC's, but the certification procedure may be adjusted as appropriate for the magnitude and complexity of the design change. Figure 2-2 lists examples of technical data normally requested for supplemental type certifications.

b. Unless specifically covered by the applicable bilateral agreement, the FAA does not issue STC's to non-U.S. applicants located outside the country where the affected aircraft, engine, or propeller was manufactured, because of the undue burden of administering the applicable requirements.

c. When included in a BASA IPA, applications for STC's shall be forwarded to the FAA office responsible for the original FAA type certificate/validation of the product. Application packages should include a full description of the major change and the proposed certification basis. If the application is for validation of an STC already issued by the exporting authority, the application package should include a statement certifying that the STC complies with FAA requirements for the product. If the application is for an STC project that is concurrently being evaluated by both the FAA and the exporting authority, the certifying statement by the exporting authority may be made at the end of the project.

## **2-5. ACTIONS TO TRANSFER, SURRENDER, OR REVOKE AN FAA TYPE CERTIFICATE**

a. **General.** ICAO guidelines provide for the transfer of continued airworthiness responsibilities to the new type design holder and its CAA when a TC moves between countries. Transfer of ICAO state of design responsibilities for TC's and STC's to or from the United States may only be accomplished for those products within the scope of the bilateral Implementation Procedures established between the FAA and the CAA. Further, transfer of state of design responsibilities for STC's may only be accomplished: 1) when a bilateral agreement specifically provides for acceptance of state of design responsibilities for STC's; 2) for major changes to products within the scope of those bilateral Implementation Procedures; and 3) when the CAA has issued a type certificate or equivalent for the product being transferred. It is the option of the importing CAA whether or not to accept ICAO state of design responsibilities. It is important for industry to understand these conditions when contemplating the international sale or purchase of a type certificate.

### **b. Transfer of a Foreign TC or STC to a Person in the U.S.**

(1) The FAA will accept ICAO state of design responsibilities for TC and STC transfers only from countries with which the U.S. has a bilateral agreement. Upon notification of a transfer or transfer request from the CAA type certificate holder to a



U.S. applicant, the CAA should notify the product-accountable Directorate to establish procedures for the efficient transfer of the ICAO state of design responsibilities for the TC or STC to the U.S. Each transfer will be accomplished on a case-by-case basis through a special arrangement which identifies each authority's responsibilities in the transfer process.

**(2) The CAA should provide support** to establish that the certificated product complies with the applicable requirements of the U.S. airworthiness regulations. The CAA should provide the FAA with a compliance statement for the TC or STC certifying that the applicable requirements of the U.S. airworthiness regulations have been met.

**(3) Upon transfer of ICAO state of design responsibilities** or at an agreed-upon date, the FAA product-accountable Directorate will become responsible for complying with the continued airworthiness requirements of ICAO, Annex 8 to the Chicago Convention, *Airworthiness of Aircraft*, for the affected product, and will notify all member countries of the change in state of design responsibility. Responsibilities pursuant to the Chicago Convention will not extend to products that have not been found to meet the U.S. type design.

**c. Surrender, Revocation, or Suspension of TC or STC.** BASA IPA's also provide procedures in cases where a TC or an STC is surrendered, revoked, or suspended. These procedures provide for immediate written notification and assurance of continued airworthiness responsibility to support the continued operational safety of the fleet.

## **2-6. DESIGN APPROVAL PROCEDURES FOR APPLIANCES -- FAA LETTER OF TSO DESIGN APPROVAL**

**a. The FAA will issue a letter of TSO design approval** only to manufacturers located in a country with which the U.S. has concluded a bilateral agreement applicable to the appliance in question. The exporting CAA is responsible for oversight of both the design and production of such appliances.

**b. An applicant for a FAA letter of TSO design approval** should apply through the exporting CAA with a request that the application and required data be forwarded to the FAA. The exporting CAA should contact the FAA for information concerning the latest FAA technical policy and procedures whenever the CAA receives an application for an FAA letter of TSO design approval to a TSO performance standard for which the CAA has not previously made compliance findings.

**c. The FAA issues a letter of TSO design approval** only for appliances of a kind for which a minimum performance standard has been published in an FAA Technical Standard Order (TSO) after:

**(1) Receipt of all required data** pertaining to the proper installation, performance, operation, and maintenance of the appliance;

**(2) Receipt of other specific technical data requested by the FAA** pertaining to the proposed installation, performance, operation, and maintenance of the appliance;

**(3) Receipt and approval of any proposed deviation; and**

**(4) Receipt of a certifying statement** from the exporting CAA that the appliance has been examined, tested, and found to meet the applicable FAA TSO or agreed upon standards that provide an equivalent level of safety.

**d. The FAA design approval of appliances** for which the U.S. airworthiness standards (minimum performance standards) are established in an FAA TSO can usually be accomplished by correspondence, as long as a complete data package has been forwarded by the exporting CAA. The TSO language should be carefully reviewed to ensure that all applicable data has been generated and submitted.

**e. Installation Approval.** An FAA Letter of TSO Design Approval does not constitute an installation approval for the TSO appliance on an aircraft. The installer must obtain installation approval from the applicable or cognizant authority for use on an aircraft registered by that authority.

**2-7. LETTER OF PARTS DESIGN APPROVAL [RESERVED]**

FIGURE 2-1. EXAMPLES OF TECHNICAL DATA, BY PRODUCT,  
NORMALLY REQUESTED BY THE FAA FOR TYPE CERTIFICATION

1. AIRCRAFT.

- a. A statement of the applicable U.S. design certification standards.
- b. General interior arrangement configuration drawings.
- c. Three-view drawing (exterior configuration).
- d. Master drawing list.
- e. Master equipment list.
- f. Aircraft Flight Manual (including the Configuration Deviation List, if applicable).
- g. Instructions for Continued Airworthiness.
- h. Certification compliance (checklist).
- i. Data and descriptive information needed by the FAA to approve/publish the type certificate data sheet.<sup>1/</sup>
- j. Listing of service life for critical parts subject to fatigue, if this information is not provided elsewhere in the above data.

2. AIRCRAFT ENGINES.

- a. Cross-section arrangement drawing.
- b. Master drawing list.
- c. Instructions for Continued Airworthiness.
- d. Operating manual.
- e. Installation manual.
- f. Certification compliance (checklist).
- g. Data and descriptive information needed by the FAA to prepare the type certificate data sheet.<sup>1/</sup>
- h. Listing of service life for critical parts subject to fatigue, if this information is not provided elsewhere in the above data.

3. PROPELLERS.

- a. General arrangement drawings and model description.
- b. Master drawing list.
- c. Installation manual.
- d. Instructions for Continued Airworthiness.
- e. Operating manual.
- f. Certification compliance (checklist).
- g. Data and descriptive information needed by the FAA to prepare the type certificate data sheet.<sup>1/</sup>
- h. Listing of service life for critical parts subject to fatigue, if this information is not provided elsewhere in the above data.

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<sup>1/</sup>May be presented in the form of a draft type certificate data sheet prepared by the applicant.

FIGURE 2-2. EXAMPLES OF TECHNICAL DATA  
NORMALLY REQUESTED BY THE FAA FOR SUPPLEMENTAL TYPE CERTIFICATION

ALL PRODUCTS

- a. Certification compliance checklist
- b. Aircraft Flight Manual supplement
- c. Master documentation list
- d. Master drawing list.
- e. Manufacturing and installation instruction drawings
- f. Maintenance/repair manual supplements
- g. Weight and balance data
- h. Instructions for Continued Airworthiness

## CHAPTER 3. AIRWORTHINESS APPROVAL OF IMPORTED PRODUCTS

### 3-1. GENERAL

a. **Aircraft and related products manufactured outside of the U.S.** being imported to the U.S. may be eligible for FAA airworthiness acceptance, if they have received some form of FAA design approval and are accompanied by an export certificate of airworthiness or equivalent certifying statement issued by the CAA of the country of manufacture, or by the exporting CAA of a "third country," in accordance with the provisions of a bilateral agreement, as discussed in paragraph 3-2(e).

(1) **Export certificates of airworthiness or other certifying statements**, issued by either the FAA or an exporting CAA, officially document the airworthiness condition of the exported product. These certificates may facilitate airworthiness certification by the authority of the new country of registry, but do not constitute "airworthiness certificates" within the meaning of 49 U.S.C. 44704(d) or 14 CFR part 21, Subpart H.

(2) **Any deviations from the FAA-approved design** must be noted on the certifying statement. Any such deviation must be resolved by the installer before the product is eligible for installation approval on U.S. type certificated and U.S.-registered aircraft, or on an engine or propeller to be installed on a U.S. type certificated and U.S.-registered aircraft. In no case may any aircraft be operated unless there is an appropriate airworthiness certificate or special flight permit issued to and valid for that aircraft.

b. **FAA airworthiness approvals for civil aeronautical products** to be imported to the U.S. are generally handled in the following manner:

(1) **U.S. Airworthiness Certificates** are issued for the approval of complete aircraft in accordance with the procedures outlined in paragraph 3-2 below.

(2) **New aircraft engines, propellers, appliances and parts** thereof are considered to meet the regulatory requirements for approval when the product is accompanied by a certification from the appropriate exporting authority, attesting that the product conforms to the FAA-approved design and is in a condition for safe operation as outlined in paragraph 3-3 below.

c. **The FAA requirements for the airworthiness approval of civil aeronautical products** imported to the U.S. are set forth in the following regulations.

(1) **Aircraft. 14 CFR part 21, subpart H**, establishes the procedural requirements for U.S. airworthiness certification of complete aircraft. These regulations apply to both new and used aircraft that do not already have a U.S. airworthiness certificate.

**(a) 14 CFR 21.183(c) pertains to the issuance of U.S. standard airworthiness certificates** for import aircraft type certificated by the FAA under 14 CFR 21.29.

**(b) 14 CFR 21.183(d) pertains to the issuance of U.S. standard airworthiness certificates** to other aircraft imported to the U.S. and type certificated by the FAA, such as used aircraft and aircraft type certificated under the provisions of 14 CFR 21.21 but manufactured outside the U.S. (e.g., under a licensing agreement).

**(c) 14 CFR 21.184(b) pertains to the issuance of special airworthiness certificates for primary category aircraft** imported into the U.S. that have been type certificated by the FAA under 14 CFR 21.29. Such an aircraft is eligible for a Special Airworthiness Certificate if the exporting CAA of the country in which the aircraft was manufactured issues a certifying statement that the aircraft conforms to an approved type design that meets the criteria of 14 CFR 21.24 (a)(1) and is in a condition for safe operation.

**(d) 14 CFR 21.185(c) pertains specifically to the issuance of U.S. restricted category airworthiness certificates** to aircraft imported to the U.S. which have been type certificated by the FAA in the restricted category under the provisions of 14 CFR 21.29.

**(2) Other Aeronautical Products.** 14 CFR part 21, subpart K, prescribes procedural requirements for the approval of materials, parts, processes, and appliances. 14 CFR part 21, subpart N, establishes the procedural requirements for airworthiness approval or acceptance of aircraft engines, propellers, materials, parts, and appliances manufactured outside the U.S., including appliances for which a "letter of TSO design approval" has been issued under 14 CFR part 21, subpart O (§21.601(b)(3) and §21.617).

**d. Alteration, modification or repairs** made to an aircraft or related product that are not in accordance with FAA accepted or approved data require coordination and approval of the FAA.

### **3-2. AIRCRAFT**

#### **a. Requirements for U.S. Airworthiness Certification**

**(1) FAA Regulations.** 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 to aircraft manufactured either within or outside the U.S. Additional requirements in 14 CFR parts 36, 39, 45, 47, 49, and 91 (described below) must also be met before the aircraft can be certificated or operated in the U.S.

**(2) U.S. Registration.** A valid U.S. registration must be issued by the Civil Aviation Registry in Oklahoma City, OK, and, except for those aircraft to which the provisions of 14 CFR 45.22(a) or (b) apply, appropriate nationality and registration marks ("N" numbers) must be displayed on the aircraft before a U.S. airworthiness certificate in any category may be issued. Evidence of de-registration from the foreign registry, if appropriate, and U.S. registration is required prior to the issuance of a U.S. airworthiness certificate. FAA requirements for U.S. registration are established in 14 CFR part 47. The recording of aircraft titles and security documents is addressed by 14 CFR part 49. Aircraft nationality and registration marking requirements are contained in 14 CFR part 45, Subpart C.

**(3) Aircraft Identification.** Prior to the issuance of a U.S. airworthiness certificate, the aircraft must have an identification plate in accordance with 14 CFR 21.182, which meets the requirements of 14 CFR part 45, subpart B. Subpart B also contains requirements for marking aircraft engines and propellers.

**(4) Noise and Emissions Requirements.** In addition to meeting the airworthiness standards, an aircraft must meet the noise standards of 14 CFR 21.93(b), 21.183(e) or 21.185(d), Part 36, and operating requirements of part 91, subpart I, as applicable. The emissions standards of 14 CFR part 34, if applicable, must also be met to be eligible for a U.S. airworthiness certificate.

**(5) Approved Flight Manuals, Markings, and Placards.** The aircraft must be accompanied by an approved flight manual in the English language if a manual is identified on the FAA type certificate data sheet. Also, the aircraft must have the appropriate English language markings and placards specified in the FAA type certificate data sheet, flight manual, or other approved manual materials for operations as required by 14 CFR 91.9 (a) and (b), a current weight and balance report, and a list of installed equipment. Additional requirements are specified in 14 CFR 21.5 (a).

**(6) Logbooks and Maintenance Records.** Aircraft must be accompanied by the necessary logbooks and maintenance and alteration records as specified in 14 CFR part 91, subpart E, to determine the status of required inspections, life limits, etc.

**(7) Airworthiness Directives.** Maintenance records, as specified in 14 CFR 91.417, must show that the aircraft complies with all applicable FAA AD's issued under 14 CFR part 39. The records required by 14 CFR 91.417 would satisfy that requirement.

**(8) Aircraft Location.** A U.S. airworthiness certificate is not issued to an aircraft located outside the U.S., unless the FAA finds no undue burden in administering the applicable regulations. Procedures have been established to use the services of the exporting CAA of the country of manufacture, or FAA-appointed designees, to mitigate the burden of completing U.S. airworthiness certification of aircraft located outside the U.S. A potential applicant for U.S. airworthiness certification should consult with the FAA to determine whether such services are possible in the applicant's

particular situation before the applicant makes firm commitments for the issuance of a U.S. airworthiness certificate on an aircraft located outside the U.S.

**b. Application for a U.S. Airworthiness Certificate**

(1) **Application for a U.S. airworthiness certificate** should be made by the registered owner (or an agent of the owner) on an FAA Form 8130-6, "Application for Airworthiness Certificate." AC 21-12, "Application for U.S. Airworthiness Certificate, FAA Form 8130-6," describes the details of the application.

(2) **Approved flight manuals, logbooks, and maintenance records** should not be submitted to FAA, but should be made available for examination by the FAA upon request.

**c. FAA Airworthiness Determination**

(1) **Title 49 U.S.C. 44704 (d) requires the FAA to make a finding** that the aircraft under application conforms to an FAA type certificate (i.e., an FAA-approved type design), and that it is in a condition for safe operation before the FAA issues a U.S. airworthiness certificate for an aircraft. The FAA may base its findings, wholly or partially, on a certification (e.g., an export certificate of airworthiness) issued by the exporting CAA, provided a bilateral agreement which provides for such acceptance exists between the U.S. and the other country.

(2) **14 CFR 21.183(c) and 21.185(c)** provide that an "import aircraft," i.e., an aircraft type certificated under the procedures of 14 CFR 21.29, may be eligible for a U.S. airworthiness certificate in the appropriate category (e.g., standard or restricted) if the exporting CAA of the country of manufacture certifies, and the FAA finds, that the aircraft conforms to a design configuration approved under the applicable FAA type certificate and is found to be in a condition for safe operation.

**d. CAA Export Certifications**

(1) **CAA certifications** should be made by issuance of an export certificate of airworthiness which contains the certification statement noted on the corresponding FAA type certificate data sheet or a certification that the aircraft meets its FAA-approved type design and is in a condition for safe operation. The FAA expects that the aircraft will have been fully assembled and flight-tested, and the engines and propellers will be performance tested, before a CAA export certificate is issued.

(2) **The FAA will not normally issue a U.S. airworthiness certificate** for an aircraft manufactured outside of the U.S. when no export certification is available. To be acceptable, aircraft manufactured outside of the U.S. must be controlled under bilateral procedures with assurance of conformity and condition provided by the exporting CAA in the country of manufacture. Without assurance in the form of an export certificate or a certifying statement from the exporting CAA of the country of



manufacture, there is no practical way for an applicant to show, or for the FAA to find, conformance with the FAA-approved design and condition for safe operation.

**(3) Various types of export certification documents** are utilized by the exporting CAA. In some cases, these certifications may be in the form of an official exporting CAA certificate or may be made based on airworthiness forms signed by private persons, when so authorized by the exporting CAA. The FAA will accept various types of certifications, provided they represent a certification from the appropriate exporting CAA attesting conformity to the U.S. type design and condition for safe operation of the particular product being exported and are appropriately endorsed by the exporting CAA or a duly authorized designee (the CAA of the exporting country should confirm a designee's scope of authority when so requested by the FAA). These certifications serve to comply with the requirements for an export certificate of airworthiness for the purpose of 14 CFR 21.500 or 21.502 so long as the product is within the scope of the applicable bilateral agreement. In those instances where the certifying language differs from that stated in paragraph 3-2(d)(1), the FAA will request an explanatory letter from the exporting authority.

#### **e. Used Aircraft from Third Countries**

**(1) When a used aircraft is being exported to the U.S.** from a country other than the country of manufacture, the FAA will accept export certificates of airworthiness issued by the exporting CAA:

**(a) Provided that the bilateral agreements** between the U.S. and the exporting country and between the U.S. and the country of manufacture contain the appropriate provisions for the acceptance of products produced in another country with which both the U.S. and the exporting country have bilateral agreements (i.e., "third country" provisions); and

**(b) When the exporting CAA certifies that the aircraft conforms** to its FAA-approved type design and is found to be in a condition for safe operation. In such cases, the FAA considers it incumbent upon the authority issuing the export certificate to consult with both the CAA of the country of manufacture and the FAA to ensure that it has adequate knowledge of the type design approved by the FAA. Configuration variations, modifications, and major repairs that are not FAA-approved should be identified, and FAA approval for these deviations should be obtained before the exporting CAA issues its export certificate of airworthiness.

**(2) The application for a U.S. airworthiness certification** in these cases should cite 14 CFR 21.183(d) or 21.185(b) as the basis for certification. Although these regulations do not specifically speak to an exporting CAA's certification, such certifications may be the only practicable way for the applicant to show, and for the FAA to find, conformity to the FAA-approved type design and that the aircraft is in a condition for safe operation. These procedures also apply in those instances where the bilateral agreement with the exporting country does not contain a "third country"

provision when the export certificate of airworthiness issued by the exporting CAA is endorsed by the CAA of the country of manufacture.

**(3) The procedures** of paragraph 3-2 (d) may also be applied for U.S.-manufactured aircraft being returned from a registry of another country for U.S. registration and airworthiness certification, provided the bilateral agreement between the U.S. and the last country of registry contain "third country" provisions.

**(4) FAA inspections of a used aircraft** may be conducted to determine that changes or modifications have not been made, and that the condition of the aircraft has not deteriorated subsequent to export certification by the exporting CAA. If the aircraft has been disassembled and reassembled subsequent to export certification by the exporting authority, flight testing may be required prior to issuance of a U.S. airworthiness certificate.

**(5) Cases may exist where it is impractical to obtain a U.S. airworthiness certificate** for an aircraft that has been operated on the registry of another country subsequent to the issuance of an export certificate of airworthiness by the CAA of the country of manufacture. This includes U.S.-manufactured aircraft being returned to the U.S. registry. Before a U.S. airworthiness certificate can be issued:

**(a) Applicants for the U.S. airworthiness certificate** should assure themselves that they will be able to identify repairs and modifications and document the equipment installed and maintenance accomplished on the aircraft between the period of time the export certificate was issued and the date of application for the U.S. airworthiness certificate; and

**(b) An applicant must show** that the aircraft has remained in, or has been returned to, its FAA-approved design configuration and is in a condition for safe operation. This may involve extensive inspections by designees, certificated persons, the exporting CAA of the country of manufacture, the aircraft manufacturer, or others, as appropriate, before a U.S. airworthiness certificate can be issued.

**f. Aircraft Manufactured Outside the U.S. to a Design Not Approved by the FAA.** Where an aircraft manufactured outside the U.S. was originally exported to a country other than the U.S., and the CAA of the country of manufacture has issued an export certificate attesting to conformance to a design other than that approved by the FAA, such certificates may be useful to the applicant to establish a baseline for showing conformity to the U.S.-approved design after modification. In these cases, or when the export certificate of airworthiness may not be available, the applicant should obtain the following:

**(1) A statement from the CAA of the country of manufacture** which certifies that, when originally exported from that country, the aircraft met an FAA-approved design and/or identifies any differences between the configuration identified in their original export certification and the FAA-approved design; and

(2) **The technical data necessary** to convert the aircraft to its FAA-approved design configuration. This method may involve extensive inspections by designees, certificated persons, the CAA of the country of manufacture, the aircraft manufacturer, etc., as appropriate, before the applicant is in a position to show conformity to the FAA-approved design and condition for safe operation. Attempts to obtain a U.S. airworthiness certificate via this method may prove to be impracticable for the applicant. In some instances, the applicant may ultimately be unable to obtain the desired U.S. airworthiness certificate.

### **3-3. AIRCRAFT ENGINES, PROPELLERS, MATERIALS, PARTS AND APPLIANCES (RELATED PRODUCTS)**

#### **a. Airworthiness Acceptance – New Aircraft Engines and Propellers**

(1) **14 CFR 21.500 provides for the airworthiness acceptance of aircraft engines or propellers** manufactured outside of the U.S. for which a U.S. type certificate has been issued. Such products are considered approved for installation on a U.S.-registered aircraft when a current export certificate of airworthiness has been issued by the exporting CAA of the country of manufacture which certifies that the engine or propeller:

(a) **Conforms to its U.S. type certificate** and is found to be in a condition for safe operation; and

(b) **Has been subjected to a final operational check** by the manufacturer.

#### **b. Airworthiness Acceptance – New Materials, Parts, and Appliances**

(1) **14 CFR 21.502(a) provides for the airworthiness acceptance of materials and parts** (e.g., replacement/modification parts) manufactured in a foreign country with which the U.S. has an agreement for the acceptance of these materials and parts, when the country of manufacture issues a certificate of airworthiness for export certifying that the individual material or part conforms to FAA-approved design and is in a condition for safe operation. Parts imported into the U.S. are eligible for installation on U.S.-registered aircraft in accordance with the applicable FAA-approved design.

(2) **14 CFR 21.502(a) also provides for the airworthiness acceptance of appliances and their parts** manufactured in a foreign country with which the U.S. has an agreement for the acceptance of those appliances and their parts. Neither an FAA letter of TSO design approval nor a Certificate of Airworthiness for Export issued by the CAA of the country of manufacture conveys installation approval. Installation approval for a TSO product or part should be obtained, in a manner acceptable to the FAA, at the time of installation on a U.S. registered product.

**(3) A key phrase in 14 CFR 21.502(a)** is that the product must be "manufactured in a foreign country with which the U.S. has an *agreement for the acceptance* of those materials, parts, or appliances for export and import." Generally, the U.S. does not have bilateral agreements that address all parts. Excluding the agreements between the U.S. and Canada and the U.S. and Germany, the present bilateral agreements between the U.S. and other countries only permit the import of materials, parts, components, subassemblies, etc., in support of the bilateral partner country's exported Class I products (e.g., aircraft, aircraft engine or propeller) or TSO appliances. (See appendix 4). Imported materials, parts and appliances must be directly traceable back to an FAA-approved design.

**(4) The BASA IPA between the FAA and Transport Canada (TCCA)** recognizes the equivalence of U.S. Parts Manufacturer Approvals and Canadian replacement parts approvals (via STC for replacement parts or repair design certifications with a manufacturing approval). These parts, when accompanied by TCCA Authorized Release Certificates in accordance with the BASA IPA, are eligible for import and installation on a U.S. product.

**c. Airworthiness Acceptance – Used Engines, Propellers, Materials, Parts, and Appliances.** Bilateral agreements do not include the reciprocal acceptance of used engines, propellers, materials, parts, or appliances. Any U.S. acceptance of used engines, propellers, materials, parts or appliances is dependent upon satisfying applicable FAA airworthiness and maintenance requirements. In addition, for imported items, acceptance of these imported items, when new, must have been within the scope of a bilateral agreement.

**d. Identification and Marking**

**(1) Aircraft, aircraft engines, and propellers must be identified** in a manner specified in 14 CFR 45.11.

**(2) Critical components of a product must be identified** with a part number (or equivalent) and serial number (or equivalent), as required in 14 CFR 45.14.

**(3) Appliances and articles** of a design approved by an FAA letter of TSO design approval must be marked in accordance with the requirements specified in 14 CFR part 21, subpart O, and any additional marking requirements specified in the particular TSO. Approved deviations shall be marked by the holder of the TSO design approval on the TSO appliance or noted in attached limitations.

**(4) Parts to be used as replacement or modification parts** should be identified by a part number, serial number if applicable, and the manufacturer's name or trademark. In addition, information concerning the model designation and the type certificated product for which the part is eligible for installation should be furnished. If the bilateral agreement permits production of parts to a U.S. STC design, those parts

should be marked with the U.S. STC number, as size permits. If size does not permit, information should accompany each part that identifies the applicable STC. This information can be included on the appropriate airworthiness release document. AC 20-62 - *Eligibility, Quality, and Identification of Aeronautical Replacement Parts* - prescribes the eligibility, quality, and traceability of aeronautical replacement parts.

**3-4. REBUILT PRODUCTS.** Rebuilt products are not eligible for import to the U.S. 14 CFR 43.3(j) limits rebuilding to manufacturers that hold FAA production approvals to manufacture aircraft, aircraft engines, propellers, or appliances. As a matter of policy, the FAA does not issue approvals to manufacture these products outside the U.S.

**3.5 SPECIAL MAINTENANCE RECORDS CONSIDERATION.** The information provided in paragraphs 3-1 through 3-3 above apply to aircraft or related products intended for operation under the General Operating and Flight Rules of 14 CFR part 91. U.S. operators, such as those certificated by the FAA for operation under 14 CFR parts 121, 125, and 135, are required to acquire, retain, and record sufficient maintenance information on aircraft and related products. This enables an operator to integrate the aircraft or related product into its own FAA-approved maintenance program. This can prove difficult for U.S. operators unless the records are complete and are either written in English or can be translated into English. Operators and potential U.S. operators of imported aircraft, including used U.S.-manufactured aircraft, should realize that an FAA airworthiness certificate does not automatically render an aircraft or product eligible for operation. FAA operating requirements may specify the need for additional maintenance records, inspections and tests, and the installation of instruments and equipment not specified in the basic airworthiness certification requirements.

**3-6.-3-9. [RESERVED]**

## CHAPTER 4. PRODUCTION APPROVALS

**4-1. GENERAL.** FAA approval of a U.S. manufacturer's production quality control system facilitates FAA airworthiness certification, approval, or acceptance of products manufactured at that facility. These production quality control system approvals support the manufacturer's obligation to ensure that the products delivered from the facility conform to the approved design and are in a condition for safe operation. For products manufactured outside the U.S., the bilateral agreement is based on FAA confidence in the production quality control system of a bilateral partner. The export certification of airworthiness from the CAA of a country with which the U.S. has a bilateral agreement serves the same purpose as the FAA's certification. Therefore, the FAA does not normally issue production approvals outside the U.S.

### **4-2. MANUFACTURING LIMITATIONS RELATED TO A BILATERAL AGREEMENT**

**a. Any U.S. manufacturer may propose to use the services of a foreign supplier or subcontractor** to furnish components (materials, parts, or subassemblies) for use on products, which are, or may be, certified or approved (i.e., production or prototype). Such proposals will be reviewed by the FAA in accordance with 14 CFR 21.43, 21.137, 21.303(g), and 21.601(c).

**b. A U.S. manufacturer may propose to use suppliers and subcontractors in any country** for the manufacture of components without benefit of bilateral agreements, provided the U.S. manufacturer holds an FAA production approval including an FAA approved quality control or fabrication inspection system to adequately verify that components produced in those countries conform to the manufacturer's approved design data. The FAA will not, however, permit direct shipment from a supplier or subcontractor located in a country that does not have a bilateral agreement with the U.S., unless the Administrator finds no undue burden on the U.S. in administering the applicable requirements of 14 CFR Part 21. These procedures are explained more fully in AC 21-20, *Supplier Surveillance Procedures*.

**c. A U.S. manufacturer may use a supplier located in a country with which the U.S. does not have a bilateral agreement only if** the authorities of that country would not inhibit, in any manner, an evaluation of the supplier by the FAA and that evaluation does not create an undue burden for the FAA to administer. Assurance of access should be provided to the U.S. manufacturer by both the supplier and the government of the country in which the supplier is located. This assurance of access should be made available to the FAA. If access is at any time obstructed or denied, the U.S. manufacturer will be instructed by the FAA to cease using the supplier.

#### **4-3. EXTENSIONS OF FAA PRODUCTION APPROVALS TO COUNTRIES OUTSIDE THE U.S.**

a. **The FAA may extend a Production Certificate** to include a facility located outside the U.S. when: 1) production takes place in a country with which the U.S. has a bilateral agreement; and 2) the CAA of that country is willing to conduct the necessary surveillance at facilities located in their country on behalf of the FAA. Guidance related to extensions is contained in AC 21-24, *Extending a Production Certificate to a Facility, Located in a Bilateral Airworthiness Agreement Country*, and in the applicable country's BASA IPA.

b. **When a production approval has been granted or extended** by the FAA or CAA of a country of manufacture, the approving authority will be fully responsible for the surveillance and oversight of the manufacturing facilities, wherever located, including a "third country."

#### **4-4. PRODUCTION UNDER LICENSE TO A U.S. APPROVAL HOLDER**

a. **The FAA or CAA of country of manufacture may grant a production approval** in their respective countries based on design data obtained through licensing agreement with a TC holder in the other country. In this case the authority granting that production approval would ensure that:

(1) **Adequate manufacturing processes and established quality control procedures** exist to ensure that each product conforms to its approved licensed design data; and

(2) **A process exists that specifies who has design authority** and ensures that the design approval holder and its CAA approves all design changes made by the licensee.

b. **Production approvals based on licensing agreements** will be addressed on a case by case basis in accordance with a BASA IPA.

#### **4-5. CAA SURVEILLANCE ASSISTANCE ON BEHALF OF THE FAA**

a. **If a U.S. manufacturer uses a supplier in a country with which the U.S. has a bilateral agreement**, the FAA may utilize the country's CAA for surveillance activities and/or inspection as a means of determining that the product or service provided by the supplier meets the type design, and that the supplier is adhering to the U.S. manufacturer's quality requirements. When the CAA in a country with which the U.S. has a bilateral agreement is requested by the FAA to conduct surveillance activities or conformity inspection(s) at a supplier's facility, the U.S. manufacturer will incur all charges that the CAA may impose to accomplish the request(s).

**b. FAA production approval and supplier surveillance programs** are described in FAA Order 8120.2, *Production Approval and Surveillance Procedures*, AC 21-20, *Supplier Surveillance Procedures*, and FAA Order 8100.7, *Aircraft Certification Systems Evaluation Program*.



## CHAPTER 5. CONTINUED AIRWORTHINESS

### 5-1. GENERAL

a. **Bilateral agreements provide for close cooperation** between countries in the resolution of safety issues that can arise from in-service operation of any product exported/imported and approved or accepted under the terms of the agreement. When a safety concern arises, the FAA cooperates with its partner to determine the appropriate corrective action to be taken by operators or owners of affected U.S.-registered aircraft. The FAA expects exporting CAA's to keep it informed of corrective actions that they believe are required for the safety of U.S.-registered aircraft.

b. **The FAA also works closely with its counterpart authority** to approve changes to type designs. These changes may consist of design improvements, changes necessary for continued airworthiness, repair information, or customer options.

### 5-2. CONTINUED AIRWORTHINESS DOCUMENTS

a. **Continued Airworthiness Service documents** (e.g., service bulletins, structural repair manuals, supplemental structural inspection documents), approved by the airworthiness authority of the country where an affected product is manufactured, are considered to be FAA-approved unless otherwise noted in a specific bilateral agreement. However, service bulletins or other similar instructions classified as "mandatory" by the exporting CAA are not mandatory under 14 CFR unless required by an FAA AD.

b. **Owners or operators** of affected U.S.-registered aircraft or engines, propellers, appliances and parts (i.e., products) are not required under U.S. law to comply with service documents or directives issued by the airworthiness authorities of other countries unless an FAA AD is issued under 14 CFR part 39. FAA AD's are published in the Federal Register. AD's issued during the current calendar year are available on the Internet at <http://av-info.faa.gov>. Information for ordering AD's can also be obtained from the FAA's Airworthiness Programs Branch, AFS-610, P.O. Box 25082, Oklahoma City, Oklahoma, 73125.

c. **The FAA is committed to sharing safety critical information** as soon as possible with its bilateral partners. FAA maintains an automated data base of all service difficulty reports received from the aviation community, including reports on imported products. This data is available on the Internet at <http://av-info.faa.gov>.

d. **The FAA has filed an official difference with ICAO** over the ICAO requirement for states to require that a system exists to transmit continuing airworthiness information to type design organizations. (See ICAO Annex 8, Part II, paragraph 4.2.5.) Instead, the FAA shares significant information with the certifying authority. In addition the FAA makes its Service Difficulty Reporting (SDR) system database available on the Internet at the address listed in c. above.

### **5-3. NOTIFICATION OF UNSAFE CONDITION AND MANDATORY CONTINUING AIRWORTHINESS ACTIONS**

**a. When an exporting CAA issues a mandatory continuing airworthiness action** for an unsafe condition that exists in a product, the FAA evaluates the information provided by the exporting CAA about the unsafe condition to determine whether the condition is likely to exist or develop on another product of the same type design. The exporting CAA should provide the FAA the following information:

- (1) Make, model, and serial numbers** of the affected product;
- (2) Description of the unsafe condition**, reasons for the mandatory action, and its impact on the affected aircraft and its continued operation;
- (3) Description of the cause of the unsafe condition** (e.g., stress, corrosion, fatigue, design problem, quality control, suspected unapproved part);
- (4) The means by which the unsafe condition was detected** and, if resulting from in-service experience, the number of occurrences;
- (5) Corrective actions and corresponding compliance times**, with a list of the relevant manufacturer's service information, including reference number, revision number and date;
- (6) The number of aircraft** world-wide needing corrective action;
- (7) A statement on the availability of parts**; and
- (8) An estimate of the number of labor hours** and the cost of parts required for the corrective actions.

**b. When an exporting CAA does not issue a mandatory continuing airworthiness action**, but the FAA determines that one may be necessary, the exporting CAA should facilitate the manufacturer's providing sufficient information, including service bulletins, to the FAA in a timely manner for use in evaluating the need for an AD.

**c. Continued airworthiness information should be sent** to the FAA's Airworthiness Programs Branch, AFS-610, P.O. Box 25082, Oklahoma City, Oklahoma, 73125.

**5-4. DESIGN CHANGES.**

a. **Following the type certification of an aircraft**, it frequently becomes necessary to revise data on the aircraft type design. Major changes to a type design not great enough to require an application for a new TC, sought by the TC holder, may be issued as amendments to the type certificate issued under 14 CFR 21.29, or otherwise approved by the FAA. A certification procedure similar to that described in Chapter 2 is conducted and adjusted for the magnitude and complexity of the design change. The FAA retains the right to determine whether the proposed change is substantial enough to require a new type certificate for the changed type design.

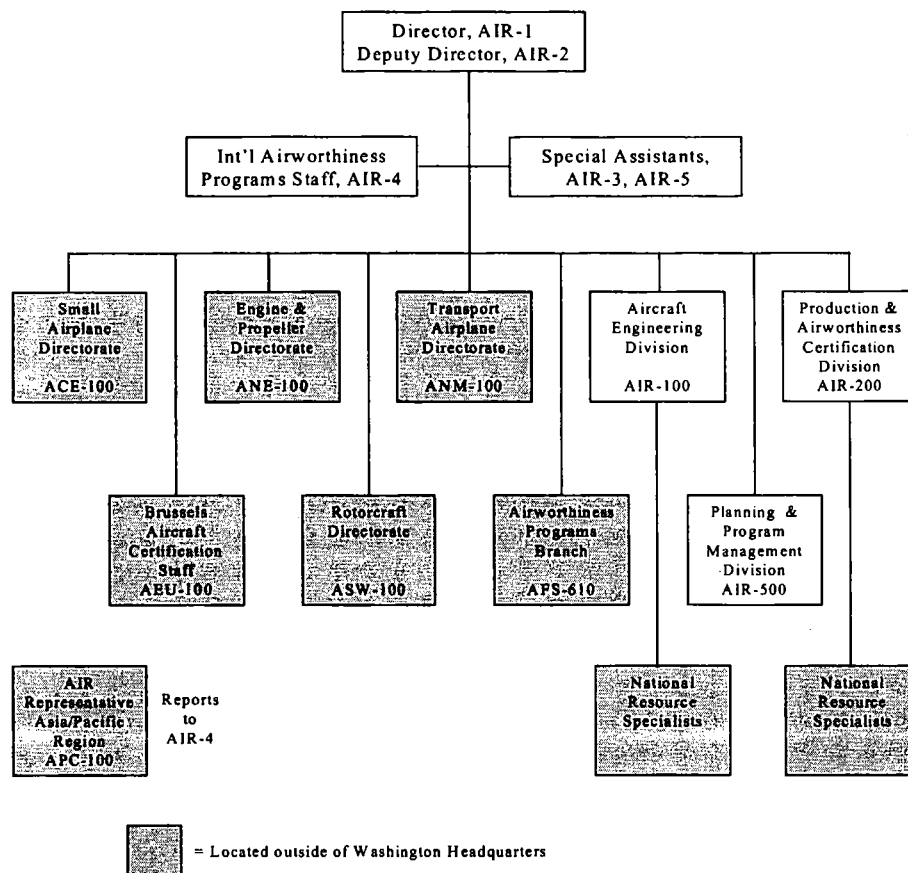
b. **Major changes to a type certificated design** (for aircraft, aircraft engines, and propellers) which do not require an application for a new type certificate may also be approved through the issuance of a U.S. STC. Minor changes made by the type certificate holder are considered approved by the FAA upon approval by the exporting CAA under its normal procedures.

c. **Each voluntary change in the type design** of an aircraft or engine that may increase fuel venting or exhaust emissions is an "emissions change" as specified in 14 CFR 21.93, and requires further demonstration of compliance with 14 CFR part 34. Similarly, each voluntary change in the type design of an aircraft that may increase the noise levels of that aircraft is an "acoustical change," requiring demonstration of compliance with 14 CFR part 36.

d. **Changes described in service bulletins, structural repair manuals, supplemental inspection documents, etc.,** with a CAA approval statement are accepted by the FAA and can be considered to be FAA-approved only under bilateral agreements. Such approval pertains to the aircraft type design only, and further FAA evaluation of installation or operational implications may be necessary.

**5-5. APPROVAL OF DESIGN DATA USED TO SUPPORT REPAIRS.** Repair data used to support minor repairs must be acceptable to the Administrator. Repair data used to support major repairs must be approved by the Administrator or conform to the provisions of a bilateral agreement. The FAA may accept design data to support repairs when approved by the CAA under the conditions included in a BASA IPA.

**APPENDIX 1**  
**AIRCRAFT CERTIFICATION SERVICE**  
**(AIR)**



## APPENDIX 2. ACCOUNTABLE FAA DIRECTORATES

### **Engine and Propeller Directorate**

ANE-100

Regulatory and policy responsibility for all aircraft engines, propellers, and auxiliary power units.

12 New England Executive Park  
Burlington, Massachusetts 01803

Telephone: (781) 238-7100

Fax: (781) 238-7199

*Bilateral Countries Assigned to ANE: Belgium, Canada, Japan, Singapore, and United Kingdom*

### **Rotorcraft Directorate**

ASW-100

Regulatory and policy responsibility for normal and transport category rotorcraft.

2601 Meacham Blvd.  
Fort Worth, TX 76137-4298

Telephone: (817) 222-5100

Fax: (817) 222-5959

*Bilateral Countries Assigned to ASW: Indonesia, Italy, and South Africa*

## **APPENDIX 2. ACCOUNTABLE FAA DIRECTORATES (Cont.)**

### **Small Airplane Directorate**

ACE-100

Regulatory and policy responsibility for:

1. Normal, utility, and acrobatic category airplanes weighing less than 12,500 pounds and having passenger configurations of 9 seats or fewer,
2. Commuter category airplanes weighing 19,000 pounds or less, with passenger configurations of 19 seats or fewer, and
3. Primary category aircraft, gliders, airships, and hot air balloons.

DOT Building

901 Locust, Room 301

Kansas City, MO 64106-2641

Telephone: (816) 329-4100

Fax: (816) 329-4106

*Bilateral Countries Assigned to ACE: Austria, Argentina, Australia, China, Czech Republic, Germany, Malaysia, New Zealand, Poland, Romania, and Switzerland*

### **Transport Airplane Directorate**

ANM-100

Regulatory and policy responsibility for all transport category airplanes.

1601 Lind Avenue, SW

Renton, WA 98055-4056

Telephone: (425) 227-2104

Fax: (425) 227-1100

*Bilateral Countries Assigned to ANM: Brazil, Denmark, Finland, France, Israel, the Netherlands, Norway, Russia, Spain, and Sweden*

NOTE: For countries not listed above, contact the International Airworthiness Programs Staff, AIR-4.

**APPENDIX 3. BILATERAL AGREEMENTS RELATED TO AIRWORTHINESS  
(AS OF OCTOBER 2000)**

|    | <b>COUNTRY</b> | <b>AGREEMENT TYPE</b>   | <b>APPLICATION/SCOPE OF U.S. ACCEPTANCE</b>  |
|----|----------------|---|--|
| 1  | Argentina      | <ul style="list-style-type: none"> <li>• BAA</li> <li>• Schedule of Implementation Procedures</li> </ul>                            | Applies to all aeronautical products, including components   |
| 2  | Australia      | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to all aeronautical products and certain components  |
| 3  | Austria        | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to all aeronautical products   |
| 4  | Belgium        | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to all aeronautical products and certain components  |
| 5  | Brazil         | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to all aeronautical products and certain components  |
| 6  | Canada         | <ul style="list-style-type: none"> <li>• BASA Executive Agreement</li> <li>• Implementation Procedures for Airworthiness</li> </ul> | Applies to all aeronautical products, including components   |
| 7  | China          | <ul style="list-style-type: none"> <li>• BAA</li> <li>• Schedule of Implementation Procedures</li> </ul>                            | Applies to fixed-wing aircraft not exceeding 12,500 lbs., commuter category airplanes up to 19 passengers with a maximum certificated take-off weight of 19,000 lbs. or less, and TSO appliances |
| 8  | Czech Republic | <ul style="list-style-type: none"> <li>• BAA</li> <li>• Operating Procedures</li> </ul>   | Applies to all aeronautical products   |
| 9  | Denmark        | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to all aeronautical products and certain components  |
| 10 | Finland        | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to gliders and aircraft appliances   |
| 11 | France         | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to all aeronautical products and certain components  |
| 12 | Germany        | <ul style="list-style-type: none"> <li>• BASA Executive Agreement</li> <li>• Implementation Procedures for Airworthiness</li> </ul> | Applies to all aeronautical products and certain components  |
| 13 | Indonesia      | <ul style="list-style-type: none"> <li>• BAA</li> <li>• Schedule of Implementation Procedures</li> </ul>                            | Applies to production oversight in Indonesia under licensing agreements with U.S. manufacturers  |

**APPENDIX 3. BILATERAL AGREEMENTS RELATED TO AIRWORTHINESS  
(AS OF OCTOBER 2000)  
(Continued)**

|    |              |   |   |
|----|--------------|---|---|
| 14 | Israel       | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to all aeronautical products, appliances, and components  |
| 15 | Italy        | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to all aeronautical products and certain components   |
| 16 | Japan        | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to all aeronautical products and certain components   |
| 17 | Malaysia     | <ul style="list-style-type: none"> <li>• BASA Executive Agreement</li> <li>• Implementation Procedures for Airworthiness</li> </ul> | Applies to TSO appliances and small, all metal airplanes up to 9 passengers with a maximum certificated take-off weight of 12,500 lbs.  |
| 18 | Netherlands  | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to all aeronautical products and certain components   |
| 19 | New Zealand  | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to fixed-wing aircraft not exceeding 12,500 lbs. and certain components.  |
| 20 | Norway       | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to all categories of civil aircraft and appliances  |
| 21 | Poland       | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to certain components; gliders; piston engines of 1,000 h.p. or less; associated propellers; helicopters; turbine engines; and fixed-wing aircraft not exceeding 12,500 lbs.  |
| 22 | Romania      | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to gliders and motorized gliders  |
| 23 | Russia       | <ul style="list-style-type: none"> <li>• BASA Executive Agreement</li> <li>• Implementation Procedures for Airworthiness</li> </ul> | Applies to small, all metal airplanes up to 9 passengers with a maximum certificated take-off weight of 12,500 lbs. and to transport category cargo airplanes (both with FAA-certificated engines, propellers, and avionics.) |
| 24 | Singapore    | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to TSO appliances and components  |
| 25 | South Africa | <ul style="list-style-type: none"> <li>• BAA</li> </ul>   | Applies to all categories of civil aircraft   |



**APPENDIX 3. BILATERAL AGREEMENTS RELATED TO AIRWORTHINESS**  
**(AS OF OCTOBER 2000)**  
**(Continued)**

|    |                |   |   |
|----|----------------|---|---|
| 26 | Spain          | <ul style="list-style-type: none"><li>• BAA</li></ul> | Applies to all categories of civil aircraft and appliances  |
| 27 | Sweden         | <ul style="list-style-type: none"><li>• BAA</li></ul> | Applies to all aeronautical products and certain components |
| 28 | Switzerland    | <ul style="list-style-type: none"><li>• BAA</li></ul> | Applies to all aeronautical products and certain components |
| 29 | United Kingdom | <ul style="list-style-type: none"><li>• BAA</li></ul> | Applies to all aeronautical products and certain components |

**APPENDIX 4. SUMMARY OF PRODUCTS ELIGIBLE FOR U.S. IMPORT  
UNDER BILATERAL AGREEMENTS  
(AS OF OCTOBER 2000)**

| BILATERAL COUNTRIES<br>(Revised 2000) | Aircraft | New Replacement/Modification<br>Parts For Exported Aircraft | Aircraft Engines | New Replacement/Modification<br>Parts for Exported Engines | Propellers | New Replacement/Modification<br>Parts for Exported Propellers | Appliances | New Replacement/Modification<br>Parts for Exported Appliances | Conformity<br>Inspection |       |               | Third Country Provisions | Maintenance | Agreement Date | See Reference Notes Number |
|---------------------------------------|----------|---|------------------|--|------------|---|------------|---|--------------------------|-------|---------------|--------------------------|-------------|----------------|----------------------------|
|                                       |          |   |                  |  |            |   |            |   | Materials                | Parts | Subassemblies |                          |             |                |                            |
| Argentina                             | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             |                          |             | 1991           | 2                          |
| Australia                             | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             | X                        |             | 1975           | 1, 2, 3                    |
| Austria                               | X        | X   | X                | X  | X          | X   |            |   |                          |       |               |                          |             | 1959           |                            |
| Belgium                               | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             | X                        |             | 1973           | 1, 2                       |
| Brazil                                | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             | X                        |             | 1976           | 1, 2                       |
| Canada                                | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             | X                        | X           | 1984<br>2000   | 1, 2,<br>15                |
| China                                 | X        | X   |                  |  |            |   | X          |   | X                        | X     | X             |                          |             | 1991,<br>1995  | 2, 4                       |
| Czech Republic                        | X        | X   | X                | X  | X          | X   | X          | X   |                          |       |               |                          |             | 1970           |                            |
| Denmark                               | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             | X                        |             | 1982           | 2                          |
| Finland                               | X        | X   |                  |  |            |   | X          | X   |                          |       |               |                          |             | 1974           | 5                          |
| France                                | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             | X                        | X           | 1973<br>1999   | 1, 2,<br>14                |
| Germany                               | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             | X                        | X           | 1997<br>1999   | 1, 2,<br>13                |
| Indonesia                             |          |   |                  |  |            |   |            |   |                          |       |               |                          |             | 1992           | 6                          |
| Israel                                | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             |                          |             | 1968,<br>1974  | 2                          |
| Italy                                 | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             | X                        |             | 1973           | 1, 2                       |
| Japan                                 | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             | X                        |             | 1977           | 1, 2                       |
| Malaysia                              | X        | X   |                  |  |            |   | X          |   | X                        | X     | X             |                          |             | 1997           | 2, 7                       |
| Netherlands                           | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             | X                        |             | 1974           | 1, 2                       |
| New Zealand                           | X        | X   |                  |  |            |   | X          | X   | X                        | X     | X             |                          |             | 1970,<br>1979  | 2, 8                       |
| Norway                                | X        | X   |                  |  |            |   | X          | X   |                          |       |               |                          |             | 1957,<br>1978  |                            |
| Poland                                | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             | X                        |             | 1976,<br>1980  | 2, 9                       |
| Romania                               | X        | X   |                  |  |            |   |            |   |                          |       |               |                          |             | 1976           | 10                         |
| Russia                                | X        | X   |                  |  |            |   |            |   | X                        | X     | X             |                          |             | 1998           | 2, 11                      |
| Singapore                             |          |   |                  |  |            |   | X          | X   | X                        | X     | X             | X                        |             | 1981           | 1, 2,<br>12                |
| South Africa                          | X        | X   | X                | X  | X          | X   | X          | X   | X                        | X     | X             |                          |             | 1955,<br>1984  | 2                          |

|                |   |   |   |   |   |   |   |   |   |   |   |   |  |      |      |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|--|------|------|
| Spain          | X | X |   |   |   |   | X | X |   |   |   |   |  | 1978 |      |
| Sweden         | X | X | X | X | X | X | X | X | X | X | X | X |  | 1973 | 1, 2 |
| Switzerland    | X | X | X | X | X | X | X | X | X | X | X |   |  | 1977 | 2    |
| United Kingdom | X | X | X | X | X | X | X | X | X | X | X | X |  | 1972 | 1, 2 |

### **EXPLANATION OF NOTES**

1. These bilateral agreements contain a third-country provision that provides for import/export certification of products by the CAA of a country other than the country of manufacture. In these instances, the exporting country must certify that the products conform to the design covered by the certificate or approval of the importing country (which would be other than country of manufacture) and that the products are in proper state of airworthiness. This provision only applies when all three countries (i.e., manufacturing, importing, and exporting countries) have similar agreements for the reciprocal acceptance of such certifications covering the same class of products. The specific text of the applicable bilateral agreements should be consulted for any limitations.

2. The U.S. has bilateral agreements with these countries which provide for the reciprocal acceptance of conformity inspections (certificates of conformity) for components (i.e., materials, parts, and subassemblies) produced within the limits of each particular bilateral, provided that:

a. An agreement exists between the manufacturers in the importing and exporting countries;

b. The component is of such complexity that a determination of conformity cannot readily be made by the manufacturer in the importing country;

c. The airworthiness authorities of the importing country have notified the airworthiness authorities of the exporting country of the applicable design, test, and quality control requirements; and

d. The authority of the exporting country is willing to undertake the conformity inspection task.

3. The U.S./Australian BAA contains a two-party country provision which provides for:

a. Reciprocal certification whereby Australia can issue an export certificate for a U.S.-manufactured product located in that country which is to be exported to the U.S.

b. Conversely, the U.S. can issue an export certificate for an Australian-manufactured product which is located in the U.S. and which is to be exported to Australia.

c. Such certifications will state that the product conforms to the importing country's type design and is in a proper state of airworthiness.

4. The Schedule of Implementation Procedures for the U.S./China BAA provides for U.S. acceptance of Chinese TSO appliances, fixed-wing aircraft not exceeding 12,500 lbs., and commuter category airplanes up to 19 passengers with a maximum certificated take-off weight of 19,000 lbs.

5. The U.S./Finland BAA is limited to acceptance of glider aircraft and appliances from each country. Although this bilateral agreement contains a provision for including appliances and replacement or modification parts therefor, by mutual consent of both countries' aviation authorities, no appliances nor replacement/modification parts have been included to date.

6. The Schedule of Implementation Procedures for the U.S./Indonesia BAA is limited, when exporting aeronautical products from Indonesia to the U.S., to the production approval and airworthiness certification or approval of civil aeronautical products for which the Indonesian manufacturer holds the manufacturing rights to a U.S. type certificate under a licensing agreement with a U.S. manufacturer, or with a manufacturer in another state with which the U.S. has an agreement for the reciprocal acceptance of type design certifications.

7. The US/Malaysia Implementation Procedures for Airworthiness provides for U.S. acceptance of Malaysian TSO appliances and small metal airplanes of up to 9 passengers with a maximum certificated take-off weight of 12,500 lbs.

8. The U.S./New Zealand BAA is limited to:

a. Export from New Zealand to the U.S.:

(1) Fixed-wing aircraft constructed in New Zealand not exceeding a maximum weight of 12,500 pounds; and their spare (replacement) parts;

(2) Appliances for use on civil aircraft; and their spare (replacement) parts; and

(3) Components for fixed-wing aircraft not exceeding 12,500 pounds.

b. Export from the U.S. to New Zealand:

(1) U.S.-constructed civil aircraft, aircraft engines and propellers; and their spare (replacement) parts;

(2) Appliances for use on civil aircraft; and their spare (replacement) parts; and

(3) Components for use on civil aircraft and related products.

9. The U.S./Poland BAA is limited to:

a. Products which may be exported from Poland to U.S. (or U.S. possession):

(1) Civil gliders and replacement/modification parts therefor designed and produced in Poland;

(2) Piston engines of 1,000 h.p. or less with associated propellers and accessories and replacement/modification parts therefor produced in Poland;

\*(3) Small fixed-wing aircraft of 12,500 pounds or less and replacement/modification parts therefor;

\*(4) Helicopters with associated accessories and replacement/modification parts therefor;

\*(5) Turbine engines and replacement/modification parts therefor; and

(6) Components and appliances for U.S.-manufactured products of the types specified in subparagraphs (1-5) above.

\*NOTE: Refer to U.S./Poland BAA for applicable design constraints.

b. Products which may be exported from the U.S. to Poland:

(1) U.S.-designed and produced aircraft, engines, propellers, components and appliances; and replacement/modification parts therefor; and

(2) U.S.-produced components and appliances for Polish-manufactured products; and replacement and spare parts therefor.

10. The U.S./Romania bilateral provides for U.S. acceptance of Romanian gliders and motorized gliders only.

11. The U.S./Russia Implementation Procedures for Airworthiness limit U.S. acceptance to Russian:

a. New and used, metal aircraft having up to 9 passengers and a maximum certificated take-off weight of 12,500 lbs. or less,

b. New and used transport category aircraft (cargo configuration only) with FAA-certificated engines, propellers, and avionics, approved for Category I and Category II instrument approach procedures; and

c. Metallic materials.

Aircraft eligible for import to the U.S. must have been designed to the applicable Russian aviation regulations (AP's). Aircraft built to earlier Soviet regulations are not covered under this agreement.

12. The U.S./Singapore BAA is limited to:

a. Export from Singapore to the U.S.:

(1) U.S.-designed component for use in the manufacture of an aircraft or related product in the U.S. (Note: Such components may also be shipped directly from Singapore to other States [other than the U.S.] when authorized by the FAA, for use as a replacement or modification part on U.S.-registered aircraft located in the other State); and

(2) Appliances approved under Federal Aviation Regulations, 14 CFR 21.617, Technical Standard Order Design Approval.

(3) Note 1 of this document (third party country provision) only applies to those products listed under the foregoing subparagraphs (1) and (2) exported from Singapore to the U.S.

b. Export from the U.S. to Singapore:

(1) All products listed in the summary chart (page 1 of this appendix); and

(2) Note 1 of this document (third country provision) applies to all products listed in the summary chart, exported from the U.S. to Singapore.

13. On August 23, 1999, Implementation Procedures for Airworthiness were concluded under the U.S./Germany Bilateral Aviation Safety Agreement. This IPA includes reciprocal acceptance of all aeronautical products and certain STC's. (The IPA replaces the 1974 U.S./Germany Bilateral Airworthiness Agreement.) Maintenance Implementation Procedures were concluded with Germany in 1997 for reciprocal acceptance of repair station certifications (contact AFS-300.)

14. Maintenance Implementation Procedures were concluded with France in 1999 for reciprocal acceptance of repair station certifications (contact AFS-300).

15. The FAA signed Implementation Procedures for Airworthiness with Canada in October 2000. This IPA includes reciprocal acceptance of all aeronautical products, including restricted category aircraft, replacement parts, and STC's. These Implementation Procedures replace the Schedule of Implementation Procedures of 1988, with the exception of chapter 4, Maintenance, Alteration or Modification of Aeronautical Products, which remains in effect until Maintenance Implementation Procedures are concluded.