

FEDERAL REPUBLIC OF GERMANY (FRG)  
SPECIAL REQUIREMENTS FOR THE IMPORT OF  
AERONAUTICAL PRODUCTS FROM THE UNITED STATES

(August 24, 1994)

1. INTRODUCTION. The special requirements described herein supplement the Agreement between the Governments of the United States and the Federal Republic of Germany of May 31, 1974, on the reciprocal acceptance of export airworthiness approvals. Part 21, Subpart L of the U.S. Federal Aviation Regulations is taken as a reference, and must be complied with, as applicable.

The airworthiness authority in the FRG, and hence the competent address for applications or inquiries relative to these requirements is the Luftfahrt-Bundesamt (LBA).

2. ELIGIBILITY.

2.1 Aircraft or other Class I products to be exported to the FRG must be eligible for airworthiness certification in the United States "Standard" classification and comply with those additional requirements as necessary to establish conformance with each product's LBA-approved type design.

NOTE: Aircraft or other Class I products eligible for certification in the United States "Restricted," "Limited," or "Experimental" classification will be considered on an individual basis.

2.2 Class II and III products to be exported to the FRG must conform to a specified LBA-approved design or standard.

3. AERONAUTICAL PRODUCTS REQUIRING LBA APPROVAL.

3.1 The following aeronautical products - among them products which are U.S. Class II - require LBA approval by issuance of a type certificate:

- (1) Airplanes.
- (2) Rotorcraft (Helicopters, Gyroplanes and Rotodynes).
- (3) Airships.
- (4) Powered Sailplanes.
- (5) Sailplanes.
- (6) Manned Balloons.
- (7) Personal Emergency Parachutes.
- (8) Aircraft Engines.
- (9) Aircraft Propellers.
- (10) Auxiliary Power Units (APU's).
- (11) Hand Fire Extinguishers.

(12) Radio Equipment to be installed in aircraft as per Nos. 1 through 6 above, or as removable equipment for use in emergencies.

3.2 Details on LBA type approval of an aeronautical product listed under paragraph 3.1 Nos. 1 to 12 and of any change that product may undergo (as f.i. under the provisions of Subpart E of FAR Part 21) are specified in paragraphs 4.1 to 4.5.

3.3 Items of equipment, which have a major influence on the airworthiness of aircraft or on the safety of the occupants, and which can be categorized as U.S. Class II based on the fact of their being listed in the "C" series under the Joint Technical Standard Order (JTSO) System, but not limited to that list, must be LBA approved in accordance with the provisions of paragraphs 3.5 and 3.6. The items in question may be inquired at the LBA.

3.4 Standard Parts and such articles, which can be categorized as U.S. Class III will be accepted by the LBA on the basis of a certified statement by the manufacturer (Approval Tag for Class III products according to FAR 21.333) confirming acceptance for use with regular Class I and Class II products.

3.5 Approval of equipment - except radio equipment, APU's, and hand fire extinguishers, which must in any event be approved separately as a type by the LBA (see paragraphs 3.1) - installed in aircraft to be exported to the FRG as listed in the FAA approved equipment list of that aircraft, may be covered by the LBA type certificate of that aircraft (paragraph 4.5 remains unaffected).

3.6 Items of Class II equipment as under paragraph 3.3, which are exported separately to the FRG and which are not spare parts of certificated aircraft, may receive a separate LBA approval, provided the relevant equipment has already been FAA approved, e.g., by TSO Authorization as per FAR Part 21, Subpart O. The procedures which must be followed in this case are specified in paragraph 5.

3.7 Integrated systems must be certificated with the aircraft.

#### 4. HOW TO OBTAIN A GERMAN TYPE CERTIFICATE.

4.1 Applicant. The applicant for a German type certificate ("Musterzulassung") or a change thereof must be the manufacturer or, where applicable, the U.S. type certificate or U.S. supplemental type certificate holder.

In some special cases it may be possible to accept an application for an LBA type certificate from a person who is not the manufacturer (type certificate holder), provided the applicant furnishes proof that he has been duly authorized and is capable to assume complete responsibility for the product in regard to continuing airworthiness.

#### 4.2 Competent Authority and Procedure.

4.2.1 The application for an LBA type certificate or change of type certificate (see paragraph 4.5) and any documents the LBA may require in this context and as they are listed as a minimum under paragraph 4.4 must be forwarded to:

Luftfahrt-Bundesamt  
P.O. Box 3054  
38020 Braunschweig  
Federal Republic of Germany  
Phone: (0531) 2355 - 0  
Fax: (0531) 2355 - 254

A copy of the application letter shall be sent to the appropriate FAA aircraft certification office as well as to:

Department of Transportation  
Federal Aviation Administration  
Brussels, Aircraft Certification Office  
c/o American Embassy  
27, Boulevard du Regent  
B-1000 Bruxelles, Belgium

4.2.2 The LBA will acknowledge receipt of the application and establish the procedure, including:

- (a) definition of the certification basis (see paragraph 4.3);
- (b) details on information and data required in addition to the documents listed under paragraph 4.4;
- (c) date and place of the LBA visit to the appropriate FAA aircraft certification office and the manufacturer's facilities; and
- (d) date and place of the certification test flight to be performed by the LBA, if applicable, with the relevant FAA offices being informed accordingly.

#### 4.3 Certification Basis.

4.3.1 The basis for the LBA type certification will be the applicable requirements established or adopted by the FRG. Moreover, any special conditions the LBA may specify in order to cover features which are not covered by existing requirements and practices, and the additional requirements listed under § 6 and, where applicable in the enclosure, must be met. The LBA may grant exceptions, if the level of safety is not impaired.

NOTE: "Applicable requirements" means: For products undergoing certification and for products currently in production

- (1) in case of airplanes, rotorcraft, sailplanes and powered sailplanes, aircraft engines, propellers, APU's:
  - (i) the applicable JAR (Joint Airworthiness Requirements) of the same date at which U.S. certification was based; or
  - (ii) the applicable FAR including each special condition upon which the issuance of the U.S. Type certificate is based plus such additional requirements as necessary to provide a level of safety as intended by the JAR at the time of the original application.

NOTE: For large transport category airplanes formerly German-adopted FAR Part 25 was replaced by JAR-25, effective: January 1, 1980; the same applies for aircraft engines and propellers where FAR Parts 33 and 35 were replaced by JAR-E and JAR-P resp., effective January 1, 1989; FAR Part 23 for small and commuter airplanes, and FAR Parts 27 and 29 for rotorcraft are still valid German regulations, but will be replaced by their respective JAR's in the near future.

(2) in case of manned balloons (according to the type of project, and with the principles outlined under (1)(i) and (1)(ii) above equally in place):

5. DVLuftBauO-LFHB "Lufttüchtigkeitsforderungen für Heißluftballone" (Hot-air balloons), resp.

6. DVLuftBauO-LFGB "Lufttüchtigkeitsforderungen für bemannte Gasballone" (Gas balloons);

(3) in case of airships, personal emergency parachutes, hand fire extinguishers: those airworthiness requirements as the LBA may define on the applicant's request;

(4) in case of radio equipment: those minimum performance standards made applicable by the relevant JTSO (or TSO, if equivalent and agreed by LBA).

For products no longer in production, such airworthiness requirements as the LBA finds acceptable in the particular case.

4.3.2 In particular cases, especially for aeronautical products of unconventional design, and in order to meet standards required by the German aircraft operations regulations, the LBA may establish additional airworthiness requirements which are necessary to ensure an acceptable level of airworthiness.

#### 4.4 Documents Required for Type Certification.

4.4.1 Aircraft. For the issuance of an LBA type certificate for an aircraft, the following or equivalent documentation (copies acceptable) must be submitted:

- (a) FAA Type Certificate (TC).
- (b) The latest issue of the FAA Type Certificate Data Sheet (advance copy may be accepted).
- (c) FAA approved Flight Manual and/or Pilot's Operating Handbook and "Flughandbuch" in accordance with paragraphs 6.1 and 6.2, where applicable.
- (d) General engineering description of the aircraft including the basic definition of the type design, accompanied by three-view drawings of major assemblies, installations, and primary structure.
- (e) A list of
  - (1) all documents submitted for FAA type certification.
  - (2) all major modifications that supplement the basic type design at the time of German certification.

- (f) Manufacturer's Compliance Checklist.
- (g) Master Drawing List.
- (h) Type Inspection Authorization (TIA) including all amendments.
- (i) Type Inspection Report, Part II (Flight).
- (j) A list of documents necessary for safe operation and continuing airworthiness of the aircraft including equipment, i.e., Operating, Maintenance, Overhaul and Repair Manuals.
- (k) The Weight and Balance Manual.
- (l) The FAA approved Master Equipment List and Optional Equipment list.
- (m) A list of radio communication and navigation equipment.
- (n) Master Minimum Equipment List (MMEL).
- (o) Maintenance Review Board (MRB)/Maintenance Planning Data Document (MPD).
- (p) A Parts Catalogue relating to the aircraft and major equipment.
- (q) A complete set of information on modifications and on special inspections (e.g. Service Bulletins, Airworthiness Directives).
- (r) An updated list of current revisions (publication status) of all documents necessary for safe operation of the aircraft.
- (s) Certification summary report.
- (t) In case of sailplanes, powered sailplanes, and manned balloons a statement signed by FAA that
  - (1) the aircraft's type design has been examined, tested, and found to meet the applicable FRG airworthiness requirements and such other conditions as can be drawn from this set of special import requirements, and
  - (2) mandatory modifications and/or Airworthiness Directives issued by FAA from the time the product was type-certificated in the U.S. to the time the LBA issues its type certificate are embodied in the FRG Type Design, and
  - (3) there are no features or characteristics in the aircraft's type design prejudicial to safe operation.

The LBA may request additional information and data. For language requirements see paragraph 6.1.

- NOTE: (1) The above listed documents will be kept on file with the LBA.
- (2) The applicant must forward to the LBA all revisions (pertinent to the German type certificate) to the above listed documents, Service Bulletins and other pertinent data free of charge as soon as these are available.
- (3) The LBA reserves the right to request the documents contained in the lists under (e) and (j).
- (4) Microfilm/-fiche documentation is acceptable for Maintenance-, Overhaul-, Repair Manuals and Parts-Catalogues only. (Not applicable for sailplanes, powered sailplane, and manned balloons where this kind of documentation will not be accepted).

#### 4.4.2 Radio Equipment.

4.4.2.1 For the issuance of an LBA type certificate for radio equipment, the following or equivalent documentation must be submitted:

- (a) One copy each of
- 1 the manufacturer's Statement of Conformance submitted to FAA.
  - 2 TSO Authorization or other evidence of FAA approval.
  - 3 the TSO Compliance Test Report.
- (b) A general arrangement drawing and such data and descriptive information needed by LBA to prepare the type certificate data sheet.
- (c) Technical Manuals. (e.g., Instruction Manual, Maintenance/Overhaul Manual, Installation Manual) shall contain information relative to the physical, mechanical, and electrical characteristics of the radio equipment concerned. The manuals shall provide all useful and necessary installation, operation, maintenance, and parts information on the major units of the system such as receiver/transmitter, indicator, antenna, control unit. The manuals shall be the latest issue.
- (d) Operational Information. If the appropriate technical manuals do not provide operational information for pilot's use, the manufacturer has to furnish the necessary instructions in the form of a pilot's guide or manual.
- (e) One specimen of illustration each of the name plates used to mark the major units of the system.

The LBA may request additional information and data.

- NOTE: (1) The above listed documents will be kept on file with the LBA.
- (2) The applicant must forward to the LBA free of charge all listed documents, Service Bulletins, and other pertinent data as soon as these are available.

4.4.2.2 Prior to forwarding the application for type certification of radio equipment to the LBA, the equipment in question must pass a spurious emission test performed by the Bundesamt für Zulassungen in der Telekommunikation.

Application for said test must be forwarded by the manufacturer or his authorized agent to:

Bundesamt für Zulassungen  
in der Telekommunikation  
Postfach 100443  
D-66004 Saarbrücken  
Federal Republic of Germany.

The conforming BZT-letter must be submitted to the LBA together with the certification application.

4.4.3 Products Other Than Aircraft and Radio Equipment. For engines, propellers: Documents corresponding to those under 4.4.1 as applicable. For APU's, hand fire extinguishers, and personal emergency parachutes at least the documents as per paragraph 4.4.2.1.

4.5 Changes to Type Certificates. Each change of a product under LBA type certificate must be LBA approved in accordance with the procedure under paragraph 4.2 for its inclusion in the type design.

Changes in this context are:

- a) "Major changes" according to FAR 21.93(a); and
- b) Changes covered by a supplemental type certificate in accordance with FAR Part 21, Subpart E.

Formal LBA approval must also be sought for any revision or supplement of a Flight Manual (Pilot's Operating Handbook), regardless of such a document being required in the U.S. or not (see paragraph 6.2), and including its German version as applicable.

## 5. HOW TO OBTAIN LBA EQUIPMENT APPROVAL.

(For radio equipment see paragraphs 3.1 and 4.4.2)

5.1 Applicant. The applicant for LBA approval of U.S. Class II equipment as referred to under paragraphs 3.6 must be the manufacturer.

### 5.2 Procedure.

5.2.1 The application for LBA equipment approval shall be made by letter (for address see paragraph 4.2) with copy to the appropriate FAA Aircraft Certification Office, stating the relevant JTSSO or such other specification accepted by FAA, the equipment complies with. Relevant documentation as per paragraph 5.3 must be included.

5.2.2 The LBA will acknowledge receipt of the application and inform the applicant of any additional requirements found necessary to assure an acceptable level of safety. Furthermore, the LBA will advise date and place of a visit to the manufacturer's facilities, if such a visit is desirable.

5.3 Documents required for LBA equipment approval. The following documentation must be submitted:

- (a) One copy each of
  - 1 the manufacturer's Statement of Conformance submitted to FAA.

- 2 the design approval letter or the Letter of Acceptance issued by FAA.
- 3 FAA Supplemental Type Certificate (STC).
- 4 FAA approved drawing list.
- 5 The Equipment Qualification or TSO Compliance Test Report.

(b) Drawings and such descriptive information as will define the equipment sufficiently for LBA to decide, whether additional requirements according to paragraph 5.4 have to be prescribed.

(c) A list of operating-, maintenance-, overhaul- and repair manuals, and documentation necessary for safe operation and continuing airworthiness of the equipment.

(d) A copy of the Installation Manual, where appropriate.

(e) A complete set of information on modifications and on special inspections (e.g., Service Bulletins).

NOTE: A revision service free of charge shall be provided.

5.4 Notification of Additional Requirements. Additional requirements which the LBA may prescribe will be those found necessary to:

(a) Provide a level of safety equivalent to that provided for by LBA requirements and practices, and as are necessary to comply with the German regulations for the operation of aircraft.

(b) Cater for differences between JTSO and TSO specifications.

(c) Cover features which are not covered by existing requirements and practices.

(d) Provide such failure analyses as are needed to ensure that the equipment is airworthy, when installed in accordance with the equipment manufacturer's instructions.

5.5 Privileges. Equipment articles, the design of which is stated by the applicant (manufacturer) to meet all safety needs required including a fabrication inspection system supervised by FAA, and thus found acceptable to the LBA, will be registered as being approved for use or installation in LBA certificated aircraft within the limitations of its design data sheet.

5.6 Changes of Products Under LBA Equipment Approval. Each design change of a product requiring substantially complete investigation for showing compliance with any requirement, forming part of the specification found acceptable to the LBA, and hence can be classified a "major change" must be notified to the LBA together with written evidence of FAA approval.

## 6. ADDITIONAL REQUIREMENTS FOR TYPE CERTIFICATION OF AIRCRAFT.

6.1 Language. Except where an exemption is granted as indicated below, all operating instructions (including markings and placards) must be provided in the German language.

Exemptions: Operating instructions except placards for passengers for all multiengine airplanes, and for rotorcraft of more than 2,000 kg (4,400 lbs) maximum weight. Maintenance instructions may be in English except for sailplanes, powered sailplanes, manned balloons, and parachutes.

6.2 Flight Manual or Pilot's Operating Handbook. Contrary to the U.S. practice a Flight Manual is required for each kind of aircraft regardless of weight. Flight Manuals for transport category airplanes shall only cover those models certified for Germany ("German Envelope Manual") Formal approval must be sought for each Flight Manual (Pilot's Operating Handbook). The Flight Manual (Pilot's Operating Handbook) in the German language (see paragraph 6.1) should correspond to GAMA scheme or equivalent and needs LBA approval. As to revisions to the Flight Manual (Flughandbuch) refer to paragraph 4.5.

6.3 Noise Limits. According to the "Luftverkehrsgesetz" (German Aviation Act), an aircraft will be eligible for a Certificate of Airworthiness ("Lufttüchtigkeitszeugnis") only, if its noise level is as low as technologically practicable, and appropriate to the type of aircraft to which it applies. For conformity, the German noise requirements based on ICAO-Annex 16 with the [[title]] "Lärmschutzforderungen für Luftfahrzeuge - LSL" must be complied with.

6.4 Anticollision Lights and Colour Markings. All airplanes, except single or two seated airplanes with a maximum weight of less than 600 kg (1,300 lbs), and rotorcraft must be equipped with anticollision lights in accordance with the applicable airworthiness requirements. For powered sailplanes and small airplanes as characterized before, intended to be operated in daylight only, some lesser standard is acceptable. Conspicuous colour painting may be used instead of anticollision light in predominant areas in these cases. White or bright yellow painted sailplanes are exempted from any installation or painting requirement. Detailed information is available on request from the LBA.

#### 6.5 Installation of Shoulder Harnesses.

(a) As a retroactive requirement where the certification basis is up to Amendment 19 of FAR 23.785(g), the front seats of normal and utility airplanes must be equipped with either a shoulder harness or a belt and diagonal shoulder strap. The installation must meet the applicable airworthiness requirements.

(b) Seats of acrobatic category airplanes must be equipped with a shoulder harness approved for acrobatic flight for each occupant. The installation must meet the appropriate JAR requirements.

6.6 Transport Category Airplanes and Rotorcraft. Transport Category airplanes and Rotorcraft in commercial service must according to the 1. DVO-LuftBO (Erste Durchführungsverordnung zur Betriebsordnung für Luftfahrtgerät - First Implementation Order to Aircraft Operation Order) comply with the respective newest JAR as to fire precautions and emergency exit and emergency lighting provisions. The LBA may grant exemptions. The LBA should in any case be approached in this context prior to final fixing of the certification basis for avoiding unnecessary discussions, and delay of delivery of the individual product. (see also Enclosure I item 2 in this context).

## 7. DOCUMENTS FOR CERTIFICATION OF THE INDIVIDUAL AERONAUTICAL PRODUCT.

7.1 Aircraft. The individual aircraft covered by an LBA type certificate and exported to the FRG shall be accompanied by the following documentation:

(a) A current United States Export Certificate of Airworthiness, stating the aircraft's conformance with the LBA Gerätekenblatt (T.C. Data Sheet) and giving special notice of differences with respect to the basic LBA approved design, if there are any.

(b) A copy of all relevant operating instructions stated in the LBA Gerätekenblatt (T.C. Data Sheet) (i.e., Flight Manual, Weight and Balance Manual, Equipment List, and placards).

(c) For used aircraft, a current aircraft file containing at least the following information: operational time of the aircraft, its engines, propellers, major equipment and components (e.g., engine logbooks, and records), maintenance repairs and modifications and Airworthiness Directives complied with.

(d) A statement of compliance as to the noise requirements of paragraph 6.3, if noise certification was not part of the type certification of the aircraft.

NOTE: (1) Any major change in type design certified according to FAR Part 21, Subpart D or E must have been LBA approved, and must be identified in the LBA Gerätekenblatt and/or in the operating instructions for that special type of aircraft.

(2) Any "Lufttüchtigkeitsanweisung" (Airworthiness Directive) published by LBA and related to the type of aircraft to be exported must have been introduced into the Type Design and/or documentation of that aircraft. A statement signed by FAA of accomplishment of the ensuing technical work will be regarded a prerequisite for German registration.

(3) (i) The "Flughandbuch" (German Flight Manual), if required in the LBA Gerätekenblatt, as well as the German placards may be added in Germany prior to the inspection of the aircraft conducted for the purpose of German registration.

(ii) The Maintenance Manual must be made available on request.

(iii) Further documents will be requested for the registration of an aircraft. Information on aircraft registration is available on request from the LBA.

7.2 Aircraft Engines and Propellers. Engines and propellers covered by the LBA type certificate and exported to the FRG shall be accompanied by the documents as per paragraph 7.1 as applicable.

7.3 Parachutes. Parachutes exported to the FRG must be identified by an Airworthiness Approval Tag (FAA Form 8130-3). In addition, emergency parachutes covered by an LBA type certificate (see paragraph 3) should be accompanied by all relevant operating instructions stated in the LBA-Gerätekenblatt (Type Certificate Data Sheet).

7.4 Radio Equipment. Each individual item of radio equipment must be identified by an Airworthiness Approval Tag (FAA Form 8130-3), and shall be accompanied by all relevant instructions stated in the LBA-Gerätekenblatt (T.C. Data Sheet).

7.5 Equipment and Standard Parts. Each item of equipment which needs LBA design approval (see paragraph 3.3) must conform to its LBA registered type design, and be identified by an Airworthiness Approval Tag (FAA Form 8130-3). The same applies for APU's and hand fire extinguishers, and each major component as of U.S. Class II to be used as a spare part with a Class I product. For standard parts and such articles which do not need separate LBA approval, and which are categorized U.S. Class III see paragraph 3.4.

## FEDERAL REPUBLIC of GERMANY

ENCLOSURE I1. SUPPLEMENTAL AIRWORTHINESS REQUIREMENTS FOR NORMAL, UTILITY AND ACROBATIC CATEGORY AIRPLANES.

1.1 Glider Towing. If certification for the purpose of use for glider towing is requested, compliance with the applicable airworthiness requirements must be shown in connection with the type certification of the airplane. Requirements for glider towing will be available on request from the LBA.

1.2 Parachute Jumping. If certification for the purpose of use for parachute jumping is requested, compliance with the appropriate airworthiness requirements must be shown in connection with the type certification of the aircraft. Requirements concerning provision for parachute jumping will be available on request from the LBA.

1.3 Spins. If approval for spins is sought, compliance with the requirement FAR 23.807(b)(5) must be shown.

2. SUPPLEMENTARY AIRWORTHINESS REQUIREMENTS FOR AIRCRAFT INTENDED FOR USE IN COMMERCIAL OPERATION. In connection with additional equipment as it may be required by the German aircraft operations regulations in regard of certain operational aspects, supplementary airworthiness requirements could come into effect. The LBA is prepared to inform on an individual basis according to the case under consideration.

NOTE: The following operation regulations are to be considered:

- (1) Betriebsordnung für Luftfahrtgerät (LuftBO);
- (2) Erste Durchführungsverordnung zur Betriebsordnung für Luftfahrtgerät (1.DVLuftBO).