



# Advisory Circular

## AC21-1

---

### Product Certification—Type Certificates and Type Acceptance Certificates

Revision 4  
01 April 2016

#### General

Civil Aviation Authority Advisory Circulars contain information about standards, practices, and procedures that the Director has found to be an **Acceptable Means of Compliance (AMC)** with the associated rule.

An AMC is not intended to be the only means of compliance with a rule, and consideration will be given to other methods of compliance that may be presented to the Director. When new standards, practices, or procedures are found to be acceptable they will be added to the appropriate Advisory Circular.

An Advisory Circular may also include **guidance material (GM)** to facilitate compliance with the rule requirements. Guidance material must not be regarded as an acceptable means of compliance.

#### Purpose

This Advisory Circular provides methods acceptable to the Director for showing compliance with Civil Aviation Rule Part 21 Subpart B and Subpart D. This material is intended to assist organisations and persons in gaining certification for aircraft types to be operated in Mongolia.

#### Related Rules

This Advisory Circular relates specifically to Civil Aviation Rule Part 21, Subpart B – Type Certificates and Type Acceptance Certificates, and Part 21, Subpart D – Changes to Type Certificates and Type Acceptance Certificates.

#### Change Notice

Subject to “Memorandum for Technical Cooperation” between the CAA of Mongolia and New Zealand on mutual cooperation in implementation of Assembly Resolution A29-3: Global Rule Harmonization, 29<sup>th</sup> ICAO Assembly, 1992, which urges States to promote global harmonization of national rules, dated 6<sup>th</sup> of May, 1999, Mongolian Civil Aviation Safety Regulation has been reconciled to the Civil Aviation Regulation of New Zealand.

Amendment 164 of Annex 1 to the Chicago Convention on International Civil Aviation urges flight crew members, ATC personnel and aircraft maintenance engineers to comply with the language proficiency requirements; and

Under Article 14 of the Civil Aviation Law of Mongolia 1999, "Use of foreign language in civil aviation" the AC has been released in English version only, in order to prevent any mistranslation and misuse of the aviation safety related documents.

This AC21-1 was developed based on NZ AC21-1 revision 4, dated on 06 September 2010.

## Table of Contents

|   |    |
|---|----|
| Introduction.....   | 4  |
| Type Certificates .....   | 4  |
| General .....   | 4  |
| Effective dates for type certificates .....   | 5  |
| Standard category .....   | 5  |
| Restricted category.....  | 6  |
| Changes to type certificates .....  | 6  |
| Type certificate – application .....  | 7  |
| Change to a type certificate–application .....  | 7  |
| Type Acceptance Certificates .....  | 8  |
| General .....   | 8  |
| Design Standards – Standard Category .....  | 8  |
| Equivalent airworthiness standards .....  | 9  |
| Changes to type acceptance certificates .....   | 9  |
| Type acceptance certificate – application .....   | 10 |
| APPENDIX 1 .....  | 13 |
| ADDITIONAL DATA EXAMPLES FOR LARGE AIRCRAFT CERTIFICATED IN THE<br>TRANSPORT CATEGORY ..... | 13 |
| APPENDIX 2 .....  | 14 |
| TYPE CERTIFICATED AND TYPE ACCEPTED AIRCRAFT MODELS .....                                   | 14 |
| APPENDIX 3.....   | 15 |
| EQUIVALENT AIRWORTHINESS STANDARDS.....   | 15 |
| British Civil Airworthiness Requirements .....  | 15 |
| Civil Air Regulations .....   | 15 |
| Special Federal Aviation Regulations (SFAR) No. 41.....                                     | 16 |
| Joint Airworthiness Requirements .....  | 17 |
| EASA Certification Specifications .....   | 17 |
| Other equivalent standards .....  | 18 |
| Restricted category.....  | 18 |
| Australian Civil Aviation Order (CAO).....  | 20 |
| Other standards.....  | 20 |

## Introduction

To be eligible to operate in Mongolia under Part 91 an aircraft must have been issued with an airworthiness certificate (or a Flight permit for a microlight).

Civil Aviation Rule Part 21 Subpart H prescribes the requirements for the issue of airworthiness certificates to aircraft. Airworthiness certificates are issued in four categories; Standard, Restricted, Special and Provisional.

Only aircraft in the standard or restricted category are eligible for the carriage of persons or goods for hire or reward under Part 91 and only aircraft in the standard category are eligible for air transport operations under Parts 121, 125 or 135. Aircraft are only eligible to be issued with an airworthiness certificate in the standard or restricted category if they have been type certificated in Mongolia or type certificated in a foreign country and subsequently type accepted in Mongolia.

Type certificates and type acceptance certificates are issued and changed under Part 21 including—

- Subpart B that covers—
  - type certification of products (aircraft, aircraft engines, or propellers) manufactured in Mongolia
  - type acceptance of foreign type certificated products imported into Mongolia
- Subpart D that covers changes to type certificates and type acceptance certificates.

This Advisory Circular gives guidance for applicants wishing to apply for the issue of, or the change to, a type certificate or a type acceptance certificate.

For the purposes of Part 21 the following advisory circulars are available—

|            |  |
|------------|--|
| AC21-1     | Product certification – type certificates and type acceptance certificates                               |
| AC21-1     |  |
| Appendix 2 | List of type certificated and type accepted products   |
| AC21-2     | Product certification – airworthiness certificates in the <i>Standard</i> and <i>Restricted</i> category |
| AC21-3     | Product certification – airworthiness certificates in the <i>Special</i> category                        |
| AC21-4     | Product certification - <i>Amateur-built</i> aircraft  |

## Type Certificates

### General

Under rule 21.19(a)(3) a person or organisation may only be issued with a type certificate for a product if they are the holder of or have applied for either a design organisation certificate issued under Part 146 or a manufacturing organisation certificate issued under Part 148. A design organisation will be familiar with certification

procedures and requirements and the ongoing airworthiness requirements relating to the product. A manufacturing organisation is required to have appropriate liaison with a design organisation to provide this support.

For the issue of a type certificate for a product type, rule 21.31 requires the applicant to show that the aircraft, engine, or propeller complies with a set of airworthiness standards specified in Part 21, Appendix C. Under rule 21.32, an applicant for a type certificate for a product type must also provide information covering noise and engine emission certification.

### **Effective dates for type certificates**

The applicable airworthiness standards for the granting of type certificates are those effective on the date of application unless otherwise specified by the Director.

The application remains valid for up to—

- 3 years for all products, or
- 5 years for an aeroplane with a MCTOW of greater than 5700 kg
- 5 years for a helicopter with a MCTOW of greater than 2730 kg.

During this period the required design standards remain those applicable on the date of application. After the applicable period has expired the applicant may submit a new application or apply to extend the existing application.

If an aircraft to be manufactured in Mongolia was previously type certificated in another country, the Director may accept the originating country's airworthiness standards. The effective date of those standards will be the date that applied for the other country's type certification.

### **Information to be supplied**

The applicant for a type certificate will only be required to provide a minimum of preliminary information as any type certification exercise will be conducted in accordance with advisory material and other documents associated with the applicable type certification basis.

For example—

The FAA supports FAR Part 23 with Advisory Circulars and FAA Orders that detail the type certification requirements. An applicant may be required to use these documents in support of their application.

Any organisation contemplating type certification of an aircraft, an aircraft engine, or a propeller should contact the Aviation Safety Regulations Department of the CAA to discuss the project.

### **Standard category**

For the issue of a standard category type certificate the set of airworthiness, noise and engine emission standards prescribed in Part 21, Appendix C (a), (d) and (e) are those of the Federal Aviation Administration and include the Federal Aviation Regulations (FAR) Parts 23 through 36 inclusive.

**Restricted category**

For the issue of a restricted category type certificate the set of airworthiness standards prescribed in Part 21, Appendix C (b) are—

- the standards prescribed in Appendix C (a) excluding those requirements that the Director finds inappropriate for the purpose for which the aircraft is to be used; or
- airworthiness design standards that the Director finds appropriate for the purpose for which the aircraft is to be used

Restricted category type certificates may be issued for the following types of operation—

- operations under Part 91
- agricultural aircraft operations under Part 137
- special purpose operations, such as helicopter external load operations under Part 133.

An aircraft with a restricted category type certificate is limited to the types of operations specified in the type certificate. Operating limitations are normally applied by including each limitation on the aircraft's airworthiness certificate, or in the approved flight manual. In particular, an aircraft with a restricted category airworthiness certificate is not eligible for—

- air transport operations
- flight instruction operations except—
  - conversion instruction
  - instruction for an agricultural rating
  - instruction for the specific purpose for which the aircraft has been certificated.

In all cases the Director may impose limitations to ensure the safe operation of the aircraft.

**Changes to type certificates**

A change to the type certificate of an aircraft is a design change. Part 21, Subpart D – Changes to Type Certificates and Type Acceptance Certificates prescribes the requirements for applicants for changes to type certificates.

Under rule 21.99 only the type certificate holder can make an application to change a type certificate. If a change is identified and the designer is not the type certificate holder a supplemental type certificate is required. The requirements to be met by the applicant for a supplemental type certificate are prescribed in Part 21, Subpart E – Supplemental Type Certificates.

*See Advisory Circular AC21-8 for supplemental type certificate requirements*

Applications for a change to a type certificate are made using the same form as used to apply for the issue of a type certificate. Under rule 21.95 a new type certificate should be applied for if a change to the product is so extensive that a complete investigation of the airworthiness design requirements will be required. Changes requiring a new certificate include, but are not limited to, changes to—

- the number of engines
- the number of rotors
- the number of blades
- the type of blade material
- the principle of operation

## **Type certificate – application**

### **General**

An application for a type certificate is to be made on CAA Form 24021/01. This form is available on the CAA website at— [www.mcaa.gov.mn](http://www.mcaa.gov.mn)

*All charges associated with the issue of the type certificate will normally be invoiced to the applicant. The CAA will invoice another client if it receives a written request and that client has agreed in writing to accept the charges.*

### **Supply of data**

Under rule 21.17(a) the applicant should supply with the application—

- for an aircraft, a three-view drawing of the aircraft and available preliminary data
- for an aircraft engine or propeller, a description of the design features, operating characteristics, and proposed operating limitations
- any further particulars that may be required by Part 21 Subpart B or by the Director.

All data, unless otherwise agreed by the Director, should be presented in the English language.

## **Change to a type certificate—application**

### **General**

An application for a change to a type certificate is also to be made on CAA Form 24021/01.

*All charges associated with the issue of a change to a type certificate will normally be invoiced to the type certificate holder. The CAA will invoice another client if it receives a written request and that client has agreed in writing to accept the charges.*

### **Supply of data**

The applicant should supply with the application—

- documentation to define the change
- identification of all affected parts of the product
- supporting data—

- identifying the compliance of the change to the applicable airworthiness requirements
- for the subsequent operation of any changed product

## **Type Acceptance Certificates**

### **General**

Type acceptance is a very straight forward process involving validation of a foreign type certificate. There should be no difficulties obtaining type acceptance of a foreign type certificate which has been issued in the Normal Category or equivalent by a “recognised” National Airworthiness Authority, such as from Canada, USA or Europe. Their design standards and airworthiness certification processes are familiar to the CAA. If an importer is contemplating importing an aircraft with a type certificate from a country which the CAA has had no previous experience, such as from Asia, Africa, Central America, or Eastern Europe, you should consult with the CAA prior to making an application.

Once issued, any subsequent aircraft of that type covered by the type acceptance certificate are eligible for the issue of an airworthiness certificate under Part 21 Subpart H.

*All aircraft must go through the entry process for the issue of an airworthiness certificate. See Advisory Circular 21-2 for further details.*

For the issue of a type acceptance certificate, rule 21.41 requires the applicant to show that the aircraft complies with a set of airworthiness and environmental standards specified in Part 21, Appendix C.

### **Effective dates for type acceptance certificates**

For type acceptance certificates, rule 21.41 accepts the effective date of the applicable standards as the date assigned in the foreign type certificate, or an equivalent document, unless another date is specified in writing by the Director.

The Director will only specify other dates where the foreign procedures would make the level of standards inconsistent with those that apply for Mongolian type certification.

### **Design Standards – Standard Category**

For the issue of a standard category type acceptance certificate the set of airworthiness and environmental standards are prescribed in Part 21, Appendix C (a) and include—

- FAR Parts 23 to 36 inclusive
- airworthiness standards that are found by the Director to—
  - comply with the International Civil Aviation Organisation (ICAO) Annex 8 requirements; and
  - provide levels of safety equivalent to the basic airworthiness standards of

## the FAR Parts 23-35.

In addition, Part 21 Appendix C (c) details the requirement to provide a flight manual as part of the design standards for an aircraft.

### **Equivalent airworthiness standards**

Although the basic design standards are the FARs, the Director accepts as equivalent the standards which were in force at the time the type certificate was issued. The Director also accepts as equivalent British or European design requirements, or their earlier versions.

Sets of standards accepted by the Director as being equivalent standards for the issue of a standard category type acceptance certificate are listed in Appendix 3 to this advisory circular. When an applicant applies under each of these standards the flight manual requirements of Part 21, Appendix C (c) should also be applied.

What the paragraph under Appendix C(c) means is that if the original design standards which an aircraft was approved under for the foreign type certificate did not require a Flight Manual, and therefore there is none referenced under the foreign type certificate, then a suitable document to be adopted in Mongolia must be provided. For example the FAA did not require Flight Manuals to be approved for light aircraft until around 1978. (Instead any mandatory information or flight limitations were provided to the pilot in the form of instruments markings and placards.) However generally speaking the aircraft manufacturer still provided a pilot's manual in some form, which was often called the Owner's Manual or something similar. The CAA usually just adopts this document as the Flight Manual in Mongolia. If the aircraft does not have such a handbook, mostly because it is very old, then the CAA can help in the selection of a suitable document. If there is no Flight Manual as part of the foreign type certificate we recommend the applicant just states that fact on the application and request the CAA's assistance with identification or production of an alternative Flight Manual.

Generally speaking an applicant for Type Acceptance should not have to consider whether the design standards for the foreign type certificate are acceptable, provided the foreign type certificate was either issued by a recognised country, or it has been previously validated by one of the recognised National Airworthiness Authorities, such as the FAA.

### **Changes to type acceptance certificates**

Changes to type acceptance certificates are covered by Part 21 Subpart D.

Subpart D states that applications for changes to a type acceptance certificate are treated as applications for a new type acceptance certificate. This is because—

- there is no holder of a type acceptance certificate and
- the only reason a change would be likely to be required would be to add an

additional model to an existing certificate.

Originally the Director issued a new certificate and type acceptance report for each new application. Current policy is that a type acceptance report is issued to cover each foreign type certificate, and includes all applicable models and variants listed on that foreign type certificate. The report is amended to a later revision number to add new models or serial number ranges.

## **Type acceptance certificate – application**

### **General**

Any person or organisation may apply for a type acceptance certificate, including a foreign person or organisation such as the aircraft manufacturer. The support of the manufacturer or foreign type certificate holder will always be required however, due to the nature of the data required to be supplied.

The type acceptance certificate is issued in respect of the aircraft type itself, there is no certificate holder as such. The type acceptance certificate is issued to validate a foreign type certificate in Mongolia. (It is CAA Policy, because it is only of ceremonial value, that the original type acceptance certificate is only issued to the type certificate holder, irrespective of who is the applicant for type acceptance.)

A type acceptance certificate is issued on the basis of the supply of the data specified in Part 21 Subpart B. It is not necessary for an example of the aircraft type to have been imported.

An application for a type acceptance certificate is to be made on CAA Form 24021/02. This form is available from the CAA website.

*All charges associated with the issue of the type certificate will normally be invoiced to the applicant. The CAA will invoice another client if it receives a written request and that client has agreed in writing to accept the charges.*

### **Engines and Propellers**

Part 21 Subpart B provides for type acceptance of products, which includes engines and propellers. A type acceptance application for an aircraft can include the engine and propellers, or they can be the subject of a separate type acceptance application.

### **Foreign Type Certificate**

Type Acceptance in Mongolia is expected to be based on the State-of-Design foreign type certificate. The reason for this is so that the CAA has the most direct supply of continuing airworthiness data. The State-of-Design National Airworthiness Authority should also be able to provide the best support of the type certificate. In most cases the State-of-Design type certificate will have the most favourable operating conditions and limitations and will be the most up to date. In the rare case that there is some particular advantage to using another validated type certificate, consult with the CAA.

### **Product type details**

The foreign type certificate and exactly which models the type acceptance certificate is to cover should be carefully specified by the applicant. The only restriction on the

number of models that can be included is that they must all be included on the same foreign type certificate and the data supplied, including flight manuals, must cover all the models.

The category of type acceptance granted will usually follow the category shown on the foreign type certificate, subject to a review of the certification basis by the Aviation Safety Regulations Department of CAA.

Type Acceptance applicability is usually determined by the coverage of the manuals supplied. Therefore it may be not only model and variant but also serial number specific.

### **Supply of data**

Data supporting the application should be supplied at the time of the application, or, if it is not available at that time, a covering letter should be supplied giving the reasons and details of when the data will be available. If the applicant is not the type certificate holder, the CAA will contact the type certificate holder and request the data needed. Any costs imposed by the type certificate holder for the provision of type data must be met by the applicant.

The applicant should supply with the application—

- originals or photocopies of the—
  - type certificate
  - type certificate data sheet (except FAA or EASA, which are available on the net)
  - compliance summary documents for airworthiness and environmental certification
  - details of any exemption granted, equivalent safety findings or special conditions applied
- originals of the—
  - flight manual
  - maintenance manual
  - parts catalogue
  - service information

for the aircraft, engine and propeller. *For all data, including aircraft and component manuals, the CAA would prefer electronic format, or access to a website database.*

An inherent part of type acceptance is continued support of the aircraft and component documentation. This will inevitably require the support of the respective manufacturers. There is a form available on the CAA website CAA2171 for the use of the respective manufacturer's as an agreement to supply updates of manuals.

Where the application is for a model on a foreign type certificate, where another model on the same type certificate has already been type accepted, the CAA should be

consulted before requesting data from the manufacturer as some or all of the data requirements may already be held by the CAA.

For larger aircraft certificated under FAR Part 25 Transport Category or an equivalent it is desirable to supply additional data that may subsequently be required for other CAA certificates or approvals. Examples of such additional data are included in Appendix 1 to this advisory circular.

### **Validation Visit**

Based on an ICAO audit finding and EASA recommendation, it is CAA policy that a more in-depth review is conducted where either the CAA has not had any recent contact with a manufacturer or the National Airworthiness Authority of the State of Design, or where the type has new or unusual features or a very recent certification basis. It would involve a validation visit by certification specialists from the CAA to the manufacturer. This is an opportunity for the CAA to become familiar with the aircraft and the approval process and paperwork, as well as establishing contacts with the manufacturer or type certificate holder. The CAA has found it essential to have a good working relationship for technical queries and continuing airworthiness information. In accordance with the Civil Aviation Charges Regulations any such work overseas must be paid for by the applicant, including travel and accommodation costs and expenses.

### **Training**

Where a new aircraft type is being introduced into service in Mongolia which will require significant approval action and subsequent regulatory oversight by the CAA, then training will be required to be provided to CAA staff who will be involved in approval of the aircraft for Air Transport operations. This would include:

- a full type-rating course for a flight operations inspector for each type;
- a general familiarisation course (typically 1-2 weeks) for a mechanical systems airworthiness inspector;
- an avionics familiarisation course for an avionics systems airworthiness inspector. Ideally this should be provided in advance of the aircraft entering service.

**APPENDIX 1****ADDITIONAL DATA EXAMPLES FOR LARGE AIRCRAFT CERTIFICATED IN THE TRANSPORT CATEGORY**

| DATA  | USE  |
|---|--|
| Maintenance, overhaul and repair manuals for airframe, engines, propellers and equipment additional to those required under 21.43 | Evaluation and issue of airworthiness directives. Defect and engineering investigations. |
| The detailed specification for the type   | Conformity with Operating rule equipment requirements.                                   |
| Electrical load analysis  | Approval of design changes.  |
| Operations manual   | Approval of Operator's Operations Manual and training courses.                           |
| Master minimum equipment list (MMEL)  | Approval of Mongolian Operator's MELs.   |
| Maintenance planning document (MPD)   | Approval of maintenance programmes.  |
| Maintenance review board document (MRB)   | Approval of maintenance programmes.  |
| Maintenance schedule  | Approval of maintenance programmes.  |

## **APPENDIX 2**

### **TYPE CERTIFICATED AND TYPE ACCEPTED AIRCRAFT MODELS**

Refer Advisory Circular AC21-1 Appendix 2 *Type Certificates and Type Acceptance Certificates – Appendix 2 to AC21-1.*

## APPENDIX 3

### EQUIVALENT AIRWORTHINESS STANDARDS

The following paragraphs list the sets of standards accepted by the Director as being equivalent standards for the issue of a standard category type acceptance certificate:

#### ***British Civil Airworthiness Requirements***

Acceptable British Civil Airworthiness Requirements include—

- BCAR Part 23 – Light aeroplanes
- BCAR Part 29 – Rotorcraft
- BCAR Part 31 – Manned Free Balloons

*BCAR Part 31 supersedes the earlier British Airworthiness Requirements – Hot Air Balloons.*

In addition, older superseded BCARs will be accepted for aircraft certificated to those standards at the time—

- Section D – Aeroplanes
- Section E – Gliders
- Section G – Rotorcraft
- Section K – Light Aeroplanes

The British Airworthiness Requirements – Hot Air Balloons, superseded by BCAR Part 31, are accepted by the Director and are published by the—

British Balloon and Airship Club  
Artillery Mansions  
75 Victoria Street  
London SW 1 United  
Kingdom

British Civil Airworthiness Requirements are published by the—

Civil Aviation Authority  
Printing & Publications Service  
Greville House  
37 Gratton Road, Cheltenham  
Gloucester GL50 2BN United  
Kingdom

#### ***Civil Air Regulations***

Acceptable Civil Air Regulations include—

- Part 3 – Airplane Airworthiness: Normal, Utility and Acrobatic Categories
- Part 4b – Airplane Airworthiness: Transport Category, subject to compliance

with the Special Airworthiness Requirements of Federal Aviation Regulations Part 121 Subpart J

- Part 6 – Rotorcraft Airworthiness: Normal Category
- Part 7 – Rotorcraft Airworthiness: Transport Category

Civil Air Regulations were published by the Federal Aviation Agency of the USA. They have now been superseded by Federal Aviation Regulations. Copies are held by, and may be viewed in, the library of the Mongolian CAA. They are also available on the FAA website at [www.faa.gov](http://www.faa.gov).

### ***Special Federal Aviation Regulations (SFAR) No. 41***

SFAR 41 allowed certain aircraft to have passenger seat numbers increased beyond nine and take-off weights extended beyond 12 500 pounds. It applied only to aircraft certified under FAR Part 23 standards in force on or after 13 March 1971. Airworthiness certificates were not issued under SFAR 41 after 17 October 1991.

The standards of SFAR 41 will be accepted by the Director as equivalent standards, for aircraft issued with amended or supplementary type certificates by the FAA under SFAR 41, if—

- airworthiness certificates have been issued to the aircraft by the FAA
- for weights above 12 500 pounds, the additional requirements of SFAR 41 section 4(c) are complied with
- the exception of SFAR 41 section 5(b)(1) is not applied
- for weights above 12 500 pounds, the applicant provides evidence that FAR 25.853(a) in force on 6 March 1995 is complied with

The requirements of SFAR 41 section 4(c) are FAR Part 25 standards applied by the FAA unless the airworthiness certificate states that ICAO Annex 8 requirements are not met. The subjects include—

- approach, climb, and take-off performance
- gust load standards
- smoke evacuation design
- engine rotation, restarting, and cooling design

The exception of SFAR 41 section 5(b)(1) was only granted by the FAA for aircraft limited to FAR Part 91 non-commercial operations.

The FAR Part 25.853(a) requirements are applied by FAR 135.170 for aircraft certified under SFAR 41 that are to be used for commercial operations. They are compartment interior requirements.

Special Federal Aviation Regulations are issued by the Department of Transportation, Federal Aviation Administration (FAA) of the United States of America.

SFAR 41 is published by the—

Superintendent of Documents  
US Government Printing Office  
Washington, DC 20402  
United States of America.

### ***Joint Airworthiness Requirements***

Acceptable Joint Airworthiness Requirements include—

- JAR-22 – Sailplanes and Powered Sailplanes
- JAR-23 – Small Aeroplanes
- JAR-25 – Large Aeroplanes
- JAR-E – Engines
- JAR-P – Propellers
- JAR-VLA – Very Light Aeroplanes

JAR-VLA applies to aeroplanes with a maximum certified take-off weight of not more than 750 kg and a stalling speed, in the landing configuration, of not more than 45 knots.

The acceptable means of compliance and interpretations of JAR-VLA Section 2 will also be accepted.

Aircraft type certified under these standards will generally be limited to privileges applicable under the original design standard. JAR-VLA aircraft are limited to Part 91 operations and in many cases day-VFR flight.

Joint Airworthiness Requirements are published, for the Airworthiness Authorities Steering Committee, by—

Civil Aviation Authority  
Printing and Publication Services  
Greville House  
37 Gratton Road, Cheltenham  
Gloucester GL50 2BN United  
Kingdom

### ***EASA Certification Specifications***

Acceptable EASA Certification Specifications include—

- CS-22 (Sailplanes and Powered Sailplanes)
- CS-23 (Normal, Utility, Aerobatic and Commuter Aeroplanes)
- CS-25 (Large Aeroplanes)
- CS-27 (Small Rotorcraft)
- CS-29 (Large Rotorcraft)
- CS-31HB (Hot Air Balloons)

- CS-E (Engines)
- CS-P (Propellers)
- CS-VLA (Very Light Aeroplanes)
- CS-VLR (Very Light Rotorcraft)

EASA Certification Specifications are published by—

European Aviation Safety Agency  
Postfach 10 12 53  
D-50452 Cologne  
Germany

They are also available on their website at [www.easa.eu.int](http://www.easa.eu.int)

### ***Other equivalent standards***

Other sets of standards may be accepted by the Director as equivalent airworthiness standards if they meet the criteria of Part 21 Appendix C (a)(2). To provide evidence that the criteria are met, the Director may require an applicant to supply—

- a copy of the set of standards and, if they are written in a foreign language, a certified English translation
- evidence of the effective date
- evidence that the standards apply, in the country of origin, to operations equivalent to the air transport operations as defined in the CAR
- evidence that the standards are accepted as meeting the requirements of ICAO Annex 8
- a comparison of the requirements with those of the basic standards that apply for the class of aircraft, engine, or propeller at the same effective date
- accident data relating to the class of aircraft, engine, or propeller complying with the standards

At an early stage, the Director should be advised of any intentions to use a set of other equivalent standards. The Director may already hold the necessary evidence or may have accepted the set as equivalent. In other cases the Director may have previously decided that a set of standards does not meet the requirements for acceptance in the standard category.

For example, Eastern European and Soviet airworthiness standards pre-1990 have never been accepted as equivalent by any of the recognised western national airworthiness authorities.

### **Restricted category**

For the issue of a type acceptance certificate in the restricted category an applicant should show that the aircraft complies with a set of acceptable airworthiness standards. Part 21 Appendix C (b) prescribes acceptable airworthiness standards for

the restricted category as—

- any of the Federal Aviation Regulations prescribed in Appendix C (a)(1) excluding those requirements that the Director finds inappropriate for the purpose for which the aircraft is to be used; or
- a set of airworthiness design standards that the Director finds appropriate for the purpose for which the aircraft is to be used.

Restricted category type acceptance certificates may be issued for the following purposes—

- operations under CAR Part 91
- agricultural aircraft operations under CAR Part 137
- special purpose operations, such as helicopter external load operations under CAR Part 133

Aircraft with a restricted category type acceptance certificate will only be eligible for the issue of an airworthiness certificate in the restricted category for the purpose the type acceptance certificate was issued. This may include the above but may not include air transport operations under Part 121 and Part 135.

The following paragraphs list the sets of standards accepted by the Director as being equivalent standards for the issue of a restricted category type acceptance certificate. The standards are identified by the type of operation to be carried out. When an applicant applies under each of these standards the flight manual requirements of Part 21, Appendix C (c) should also be applied.

### **Operations under Part 91**

The following paragraphs list the sets of standards accepted by the Director as being equivalent standards for operations under Part 91:

#### ***British Civil Airworthiness Requirements***

Acceptable British Civil Airworthiness Requirements include—

- BCAR Section S – Small Light Aeroplanes

BCAR Section S applies to aeroplanes with—

- a maximum total weight of 390 kg
- a wing loading at maximum total weight not exceeding 25 kg per square metre
- a maximum fuel capacity of 50 litres
- a maximum of two occupants

Aircraft certificated under this standard are only certificated for Day-VFR non-aerobatic operations as specified in the flight manual and will be limited to non-hire or reward operations under Part 91 as will be specified on the airworthiness certificate.

BCAR are published by:

Civil Aviation Authority Printing and  
Publication Services Greville  
House  
37 Gratton Road, Cheltenham  
Gloucester GL50 2BN United  
Kingdom

### ***Australian Civil Aviation Order (CAO)***

Acceptable Australian Civil Aviation Orders include—

- CAO Section 101.55 – aircraft certification requirements for aeroplanes with a maximum weight not exceeding 450 kilograms and a stalling speed in the landing configuration of not more than 40 knots

In particular, the accepted sets of standards are those of CAO 101.55 except—

- paragraph 3.3(d)
- the noise certification requirements of paragraph 9

Aircraft type certificated under this standard are only certificated for Day-VFR operation as specified in the flight manual, and will be limited to non-hire or reward operations under Part 91 as will be specified on the airworthiness certificate. The limitations may be reduced if the aircraft is fitted with a type certificated engine and propeller combination.

CAO are published by—

CASA Publications Centre  
607 Swanston St  
PO Box 1986  
Carlton, Victoria 3053  
Australia

### ***Other standards***

Other sets of standards may be accepted by the Director under Part 21 Appendix C (b)(2) if the standards are appropriate for the purpose for which the aircraft is to be used. To provide evidence that the standards are appropriate, the Director may require the applicant to provide any of the following—

- a copy of the set of standards and, if they are written in a foreign language, a certified English translation
- evidence of the effective date of the design standard
- for standards issued by a foreign Authority a statement of any conditions relating to the standards applied by the foreign Authority
- a comparison of the standards with those for standard type certificates for the same class of aircraft
- safety records of the aircraft for which the certificate has been applied for or for other aircraft of a similar type complying with the set of standards

Operational limitations may be applied by the Director to ensure an adequate level of safety is maintained.

Sets of standards that may be accepted for operations under Part 91 include—

- standards accepted for standard type certification with exceptions that do not reduce the level of safety significantly
- standards that applied before being replaced by standards accepted for standard type certification
- military airworthiness design standards that closely relate to civil airworthiness design standards
- standards that are not shown to fully comply with ICAO Annex 8
- standards limited by foreign Authorities to purposes equivalent to those listed in the restricted category section of this AC

To be acceptable to the Director, standards should include Instructions for Continuing Airworthiness, as required by Part 21.

The level of safety provided for the occupants will be assessed when applying limitations on a restricted category aircraft. A principle to be applied will be that a higher degree of protection should be provided when operating under Part 91 for hire or reward than when operating under Part 91 for other purposes. How closely the aircraft meets a Part 21 Appendix C (a)(1) standard will also be considered.

Depending on the degree of non-compliance with a Part 21 Appendix C (a)(1) standard – the reason for classification in the restricted category – the airworthiness certificate may either be limited to flight within Mongolia or may be endorsed—

*This aircraft does not meet the airworthiness requirements of ICAO, as prescribed by Annex 8 of the Convention on International Civil Aviation. For this reason special permission to operate must be obtained from each country over whose territory the*

### **Agricultural aircraft operations**

Although Part 26 Appendix B.2 calls up some sections of CAM 8 as additional requirements for agricultural aircraft, CAM 8 in its entirety has never been accepted in Mongolia as an appropriate overall standard for an agricultural aircraft. This is because the structural and handling provisions are considerably abbreviated from the standard category airworthiness requirements for that class of aircraft. Aircraft certificated to CAM 8 have only been accepted in Mongolia where the aircraft has also been shown to meet the structural requirements of FAR Part 23, or an equivalent set of standards, either by a statement on the type certificate or a certified statement from the manufacturer. In addition the overall level of non-compliance with a Part 21 Appendix C (a)(1) standard shall be assessed.