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**Australian Government**  
**Civil Aviation Safety Authority**

# **AIRWORTHINESS PROTOCOL**

## **(COA.02) - Experimental certificates**

September 2024

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### Acknowledgement of Country

The Civil Aviation Safety Authority (CASA) respectfully acknowledges the Traditional Custodians of the lands on which our offices are located and their continuing connection to land, water and community, and pays respect to Elders past, present and emerging.

Inside front cover artwork: James Baban.

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# 1 Purpose

An aircraft that meets the requirements of ICAO Annex 8 to the Convention on International Civil Aviation through the finding of compliance to its certified type design will generally be issued with a Standard certificate of airworthiness.

In some circumstances, aircraft are unable to meet the airworthiness requirements for the certification category but are capable of safe operation under defined operating conditions and for specific purposes.

Special Certificates of Airworthiness (CofA), which include experimental certificates, are issued to permit certain kinds of operations that do not meet the requirements for a standard CofA.

## 2 Concept and philosophy

Experimental aircraft are those aircraft that are either currently under development, have modifications applied that are currently under development or by their nature the aircraft will not meet the airworthiness requirements of the other available CofA categories.

Amateur built aircraft and kit built Light Sport Aircraft (LSA) fall into this latter category. However, aircraft accepted by CASA or an authorised person through an amateur built aircraft acceptance (ABAA) are issued special certificates of airworthiness and are not experimental by definition. ABAA were issued to aircraft for applications made on or before 30 September 2000, all subsequent amateur built aircraft are issued experimental certificates.

Under regulation 21.195A of CASR, CASA, an authorised person or a relevant approved design organisation must issue experimental certificates to allow specific operations of aircraft which are not by their nature type certificated or have modifications incorporated that are not yet approved.

In order to compensate for not meeting the airworthiness requirements, the aircraft is permitted to operate with certain restrictions or conditions that provide for an acceptable level of safety.

### 3 Process

1. All associated staff must be knowledgeable, familiar and competent with airworthiness principle (COA.02) - Experimental Certificates.
2. All administration tasks should follow standard regulatory service administration procedures as applicable.
3. An application for an experimental certificate must be completed in full by the applicant prior to the initiation of a formal assessment. The following forms should be used:
  - a. FORM 718 - Special certificate of airworthiness for the purposes identified in CASR 21.191 (a) through (i).
  - b. FORM 682 - Special certificate of airworthiness or experimental certificate for light sport aircraft for the purposes identified in CASR 21.191 (j) and (k).
4. FORM 727 – Eligibility statement – amateur-built aircraft is also required to be completed by the applicant for the category of ‘operating an amateur-built aircraft’.
5. FORM 681 - Light sport aircraft statement of compliance is also required where the purposes for certificate issue is operating certain light sport aircraft CASR 21.191(j).
6. Worksheet (COA.02) - Experimental certificates provides the detailed steps for the complete assessment. All steps must be confirmed by a competent CASA authorised person as satisfactory (or otherwise).
7. FORM 882 – Conformity inspection record must be used if an aircraft inspection is required
8. Following approval, the formal notification of the approval must be sent to the applicant.

## 4 List of supplements

Only the following supplements may be used in support of this protocol. The most recently approved versions will be found on the CASA intranet website. Approved forms are located on CASA's external website.

- a. Principle – (COA.02) Experimental certificates.
- b. Worksheet – (COA.02) Experimental certificates.
- c. Instrument (COA.02) Experimental certificates.
- d. Form 681 - Light sport aircraft statement of compliance.
- e. Form 682 - Special certificate of airworthiness or experimental certificate for light sport aircraft
- f. Form 718 – Application for special certificates of airworthiness.
- g. Form 720 - Special certificate of airworthiness.
- h. Form 727 - Amateur built aircraft - eligibility statement.
- i. Form 882 – Conformity inspection record.

## 5 Scope

This protocol considers the aspects for assessing an application for an Experimental Certificate for the purposes provided in CASR 21.191. Other classifications of special certificates of airworthiness are the subject of Protocol (COA.01) - Certificates of Airworthiness.

## 6 References

### 6.1 Associated legislation

Table 1. Legislation associated with this protocol

Document	Title
CASR Subpart 21.H	Certificates of airworthiness and special flight permits

### 6.2 Guidance references

Table 2. Guidance material relevant to this protocol

Document	Title
AC 21.4	Amateur-built experimental aircraft certification
AC 21-10	Experimental certificates
AC 21.41	Light sport aircraft certificate of airworthiness
AC 21-42	Light sport aircraft manufacturers' requirements
AC 21-43	Experimental certificate for large unmanned aerial vehicle (UAV)
AC 21-47	Flight test safety
FAA Order 8130.2J	Airworthiness certification of aircraft

### 6.3 ICAO references

Table 3. ICAO references applicable to this protocol

Document	Title
<b>Standards</b>	Annex 8, Part II, Airworthiness of Aircraft.
<b>Guidance material</b>	Doc 9760, Part III, Chapter 4, Certificate of Airworthiness.
<b>Protocol questions</b>	<ul style="list-style-type: none"> <li>AIR 5.149, AIR 5.151,</li> <li>AIR 5.183, AIR 5.185, AIR 5.187.</li> </ul>



# 7 Revision history

Amendments/revisions of this protocol are recorded below in order of most recent first.

**Table 4. Revision history table**

Version No.	Date	Parts/Sections	Details
1.2	October 2022	All	Administrative review only
1.1	December 2020	<ul style="list-style-type: none"> <li>Process and supplemental documents.</li> <li>Assp</li> </ul>	<ul style="list-style-type: none"> <li>Added references to Form 682</li> <li>Added reference to AC 21-41 &amp; 21-42.</li> </ul>
1.0	June 2020	All	First issue