

Explanatory Statement

Civil Aviation Safety Regulations 1998

Part 132 Manual of Standards Instrument 2016

Purpose

The purpose of the *Part 132 Manual of Standards Instrument 2016*, also referred to as the Part 132 Manual of Standards (**Part 132 MOS**), is to prescribe matters for the operation, certification and maintenance aspects of limited category aircraft. The Part 132 MOS is being made under Part 132 of the *Civil Aviation Safety Regulations 1998 (CASR 1998)*.

In particular, the Part 132 MOS deals with:

- the operations that are prescribed as authorised operations for limited category aircraft
- the areas which are unsuitable for landing for a limited category aircraft that has a permit index number of 1 and for which a written approval has not been given under regulation 132.035 of CASR 1998
- the qualifications and experience requirements for an individual to be authorised by a limited category organisation
- the requirements for the giving of an approval, certificate or advice for the purposes of Part 132 of CASR 1998
- the requirements for the assignment of a permit index number to a limited category aircraft
- the prescription of historic aircraft.

Legislation

Under subsection 98 (1) of the *Civil Aviation Act 1988 (the Act)*, the Governor-General may, among other things, make regulations prescribing matters required, permitted, necessary or convenient for the Act and in the interests of the safety of air navigation. The *Civil Aviation Regulations 1988* and CASR 1998 are made under the Act.

Part 132 of CASR 1998 is being made by the *Civil Aviation Legislation Amendment (Part 132) Regulation 2016 (Part 132 Amendment)*, which commences after the end of 3 months beginning on the day that the Part 132 Amendment is registered. Part 132 sets out the legislative framework for the operation, certification and airworthiness of limited category aircraft. Limited category aircraft hold special certificates of airworthiness under regulation 21.189 of CASR 1998 and include aircraft such as ex-armed forces replica and historic aircraft.

Part 132 of CASR 1998 is comprised of 4 Subparts which collectively deal with the operation and certain certification and airworthiness matters for limited category aircraft, as well as the conduct of adventure flights. A fifth Subpart is reserved for future use should regulations be required for the maintenance of limited category aircraft.

Under regulation 132.040 of CASR 1998, CASA may issue a Manual of Standards for Part 132 of CASR 1998 that prescribes matters required or permitted by the Regulations to be prescribed, or prescribe matters necessary or convenient to be prescribed for carrying out or giving effect to Part 132. This power is complemented by other provisions, throughout Part 132, which empower CASA to prescribe specific matters in the Part 132 MOS.

Section 4 of the *Acts Interpretation Act 1901* provides, among other things, that if an Act (including a regulation) is enacted and at a time after its enactment (the *start time*) the Act will confer power to make an instrument, that power may be exercised before the start time as if the relevant commencement had occurred. However, the exercise of this power does not confer a power or right to impose an obligation on a person before the relevant commencement of the Act except so far as is necessary or convenient. The Part 132 MOS is being made under the power conferred on CASA to do so under regulation 132.040, a regulation that will not commence until 3 months after registration of the Part 132 Amendment. The Part 132 MOS itself will commence immediately after the commencement of Part 132 of CASR 1998 and, therefore, does not impose any obligations in advance of the commencement of Part 132 of CASR 1998.

Part 132 MOS

The Part 132 MOS contains 6 separate parts, described below.

- Part A Preliminary*
- Part B General requirements*
- Part C Qualifications and experience requirements*
- Part D Certification and airworthiness requirements*
- Part E Issuing permit index numbers*
- Part F Historic aircraft.*

Part A of the Part 132 MOS (sections 1 to 4) sets out the name of the instrument, its commencement, scope and definitions. The Part 132 MOS commences immediately after the commencement of Part 132 of CASR 1998. The Part 132 MOS includes new definitions for ***relevant engineering discipline*** and ***relevant limited category organisation***, which are used in the context of describing qualification requirements and issuing permit index numbers respectively. New definitions for ***design philosophy*** and ***maintenance level*** are included, which are terms used for calculating risk element scores using the 2 tables in Part E.

Design philosophy 1 is intended to capture aircraft that are not eligible for a standard certificate of airworthiness, but are similar in design standards, complexity and controllability to a civil aircraft that would be eligible for a standard certificate of airworthiness. Examples of aircraft that would satisfy this definition include piston-powered military trainers such as the Boeing Stearman, Ryan STM, North American T28; and transport aircraft such as the Douglas C47 and DHC Caribou. Combat aircraft such as the North American P-51 Mustang, Supermarine Spitfire and Hawker Hurricane would also satisfy the definition due to their relatively simple systems and predictable handling characteristics.

Design philosophy 2 is intended to capture aircraft that do not meet civil airworthiness standards and the aircraft incorporate special design features associated with military roles. Military roles could include bombing, ground attack, air to air combat, or any combination that would require special maintenance or operational

skills. Examples of aircraft that would satisfy this definition include the Cessna A 37 (with minigun, bomb racks and ejection seats), De Havilland Venom (with ejection seats and plywood/balsa/aluminium construction), Fairey Gannet (with double-folding wings and Armstrong Siddeley Double Mamba turboprop engine with contra-rotating propellers).

Design philosophy 3 is intended to capture aircraft with design features that compromise normally accepted handling standards, reliability or structural integrity to meet the aircraft's highly specialised military roles. Examples of aircraft that would satisfy this definition include the Lockheed U-2 (which was vulnerable during ground handling and refuelling due to its long slender wings and which allowed little margin for pilot error during flight), the Lockheed Starfighter (which was a supersonic interceptor that had difficult handling qualities and a high rate of loss due to poor engine reliability), and the English Electric Lightning (which had very complex fuel and electronics systems).

Part B of the Part 132 MOS (sections 5 to 7) prescribes requirements relating to the operation of aircraft, including the type of passenger warning placard that must be displayed (the exact text for which is specified in section 5 of the Part 132 MOS); aerodromes prescribed to be unsuitable landing areas; and authorised operations that may be prescribed by CASA at a future date that are in addition to the authorised operations mentioned in regulation 132.055 of CASR 1998.

Part C of the Part 132 MOS (sections 8 to 15) prescribes the qualification and experience (including recognition of prior learning) requirements for persons who may be authorised by a limited category organisation to do any of the following things on its behalf:

- issue limited category certificates
- approve modifications or repairs to limited category aircraft
- give a certificate to permit use of a limited category aircraft that has major repairs or modifications for adventure flights subject to limitations
- give a certificate stating an airframe life for a limited category aircraft
- give advice about damage or defects to a limited category aircraft
- give advice about modifications, repairs or safety-critical aeronautical products.

Part D of the Part 132 MOS (sections 16 to 23) prescribes the procedures to be followed and the applicable standards that must be observed by a limited category organisation and persons authorised by a limited category organisation when performing the corresponding tasks mentioned in Part C.

Part E of the Part 132 MOS (section 24) prescribes the procedures to be followed by a relevant limited category organisation when issuing a permit index number to an aircraft. Table 1 sets out the various risk categories and the point values for various risk elements. Using the total risk element score, Table 2 then assigns a permit index number, with provisions for upgrading a permit index number, if applicable.

As an example, using Table 1, a Yakolev Yak-18 two-seat military trainer aircraft with no modifications and a well-recorded maintenance history would be scored by CASA or a relevant limited category organisation (an organisation approved under regulation 262AN of CAR 1998) with the following point values:

Risk Category	Points
Certification basis	0 (no civil certification equivalent)
Approved MTOW or MOW	10 (1 320 kg MTOW)
Multi-engine aircraft	Not applicable (single engine aircraft)
Stall speed at MOW	30 (V_{so} is less than 46 kts indicated air speed)
Glide capability	0 (not known)
Fatigue history	0 (not applicable)
Maintenance history	10 (full history and maintenance records)
Maintenance philosophy	0 (maintenance level 1)
Repairs and modifications	Not applicable (aircraft not modified)
Engine type and configuration	0 (non-turbocharged piston engine)
Fuel type	0 (avgas)
Fuel tankage	0 (internal only)
Fuel capacity	0 (less than 250 litres)
On-board explosives	Not applicable (no on-board explosives)
Total risk element score	50 points

After calculating the total risk element score, reference is then made to Table 2 to locate the appropriate permit index number. Continuing with the above Yak-18 example, the appropriate permit index number would be 1 (risk element score between 41 and 70 points). Upgrading to a permit index number of 0 would not be allowed in this case since the Yak-18 aircraft has a total risk element score of less than 71 points. For upgrading permit index numbers, an acceptable written safety case must be provided to CASA or the relevant limited category organisation. The safety case must demonstrate additional safety mitigations and how those mitigations will manage identified risks.

Part F of the Part 132 MOS (section 25) prescribes the Yakovlev Yak-18T as a historic aircraft, within the meaning of *historic aircraft* under regulation 132.010 of CASR 1998. The Yak-18T, which is not eligible for a standard certificate of airworthiness, is regarded by industry stakeholders as historic in nature due to its unusual configuration of being a low-wing cabin monoplane powered by a radial engine, seating 4 to 5 persons. These are features that are rare, if not unique, in post-1950s production aircraft. The Yak-18T has a notable history as a training aircraft for Aeroflot pilots and being capable of aerobatics, which is a desirable characteristic for adventure flights.

Legislation Act 2003

Under paragraph 98 (5A) (a) of the Act, regulations made for that provision may empower CASA to issue instruments in relation to matters affecting the safe navigation and operation of aircraft. Under subsection 98 (5AA) of the Act, an instrument issued under paragraph 98 (5A) (a) is a legislative instrument if expressed to apply in relation to a class of persons or aircraft or aeronautical products.

The various standards set by the Part 132 MOS apply to classes of persons and aircraft and, therefore, the instrument is a legislative instrument subject to registration, tabling

and disallowance in the Parliament, under sections 15G, 38 and 42 of the *Legislation Act 2003*.

Consultation

Following the release of the *Report of the Aviation Safety Regulation Review* and the Government response in 2014, CASA identified several areas of Part 132 of CASR 1998 that could be improved via a three-tier structure. CASA prepared and released for public consultation a draft of the Part 132 regulation amendment alongside a consultation draft MOS CD1524OS, in February 2016. A total of 5 comments were received on the draft MOS after a 2 month period of consultation, and were considered by CASA for incorporation into the Part 132 MOS. Further consultation meetings were held with the Australian Warbirds Association Ltd in June and July 2016 for the purpose of resolving additional minor issues. It is CASA's view that no further consultation under section 17 of the LIA is necessary or appropriate.

Office of Best Practice Regulation (OBPR)

The Office of Best Practice Regulation assessed the proposed amendments as having a minor impact and did not require a Regulation Impact Statement to be prepared (OBPR ID 18640).

Statement of Compatibility with Human Rights

The Statement in Appendix 1 is prepared in accordance with Part 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*. The legislative instrument does not directly engage any of the applicable rights or freedoms, and is compatible with human rights, as it does not directly raise any human rights issues.

Commencement and making

The Part 132 MOS commences immediately after the commencement of Part 132 of CASR 1998.

The Part 132 MOS has been made by the Acting Director of Aviation Safety, on behalf of CASA, in accordance with subsection 73 (2) of the Act.

[*Part 132 Manual of Standards Instrument 2016*]

Statement of Compatibility with Human Rights

*Prepared in accordance with Part 3 of the
Human Rights (Parliamentary Scrutiny) Act 2011*

Part 132 Manual of Standards Instrument 2016

Overview of the legislative instrument

The purpose of the *Part 132 Manual of Standards Instrument 2016*, also referred to as the Part 132 Manual of Standards (**Part 132 MOS**), is to set out standards relating to the operation, certification and airworthiness of limited category aircraft. The Part 132 MOS has been made under Part 132 of the *Civil Aviation Safety Regulations 1998 (CASR 1998)* and sets out requirements that apply to limited category organisations when performing administrative functions set out in Part 132 of CASR 1998.

Among other things, the Part 132 MOS prescribes qualification and experience requirements for individuals who may be authorised to issue limited category certificates for aircraft, or who may approve or advise on modifications or repairs to limited category aircraft. The Part 132 MOS also prescribes requirements for the assignment of permit index numbers for limited category aircraft which correspond to an aircraft risk element score. Historic aircraft may also be prescribed in the Part 132 MOS.

Human rights implications

The legislative instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*. The instrument does not engage any of the applicable rights or freedoms.

Conclusion

This legislative instrument is compatible with human rights as it does not raise any human rights issues. The Part 132 MOS ensures that the operation of limited category aircraft is administered in accordance with acceptable procedures and standards.

Civil Aviation Safety Authority