

RAAP 14 CAN I FLY IN CONTROLLED AIRSPACE?

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RECREATIONAL AVIATION ADVISORY PUBLICATION—RAAP 14

CAN I FLY IN CONTROLLED AIRSPACE?

Can I Fly My RAAus Registered Aircraft in Controlled Airspace (CTA)?

The answer is broadly yes, but only if you as the pilot, and the aircraft meet specific requirements. These include:

1. The pilot – must be current and compliant with RAAus requirements – BFR, membership, relevant endorsements to operate the RAAus aircraft
2. The aircraft - must be compliant to the airspace requirements with current RAAus registration, CAO 100.5 pressure instrument calibration completed in the past two years, only nominated specific engines may be fitted, and transponder fitted (if required for the airspace type).
3. The airspace – to operate in the airspace the pilot must hold a current CASA Recreational Pilot Licence (RPL) or higher – which includes an in-date flight review, correct medical and has successfully completed training for the relevant airspace endorsements for CTA/CTR

More information on each of these aspects is provided below. RAAus is currently working with CASA towards approval of a RAAus Controlled Airspace/Aerodrome endorsement.

The pilot

The pilot must be compliant to operate both the RAAus aircraft as pilot in command and to operate in the airspace as a current CASA qualified pilot. Therefore, pilots must hold both a current RAAus Pilot Certificate and a current CASA licence (i.e. have satisfactorily completed an Aircraft Flight Review (AFR) in the previous 2 years for an RPL* or higher (cannot hold a student pilot licence), and have completed the appropriate airspace training in order to meet the pilot criteria for flight through controlled airspace (CTA) in an RAAus aircraft. The medical requirements for access to CTA must also be held, which include a CASA Class 2 (Basic) Medical Certificate or higher.

*Holders of a Recreational Pilot Licence must also hold the controlled airspace, controlled aerodrome and flight radio endorsements.

Requirements found in Civil Aviation Order (CAO) 95.55 paragraph 8.2, CAO 95.32 paragraph 9.2 and CAO 95.10 paragraph 10.2:

the pilot in command holds a pilot licence with an aircraft category rating, the valid privileges of which include operating in controlled airspace and at a controlled aerodrome; and

the pilot in command has a valid flight review for the aircraft's class rating under Part 61 of CASR.

The RAAus registered aircraft

Aircraft that are being flown into controlled airspace or a controlled aerodrome must conform with the RAAus Technical manual as detailed below:

Section 12.4

1 AIRCRAFT OPERATING IN CONTROLLED AIRSPACE (CTA) – CLASS C, D, E,

- 1.1 Aircraft that are currently legally permitted to fly in Controlled Airspace (CTA) as detailed in provisions of CAO 95.10, 95.32 or 95.55, must have their instruments maintained in accordance with the provisions of CAO 100.5. The checks are only available through a LAME with specialised calibrated equipment and appropriate licence ratings.
- 1.2 Compass “swinging” is not mandatory, however, CASA AWB 34-008 provides good advice. A compass deviation card should be fitted following any compass checking.
- 1.3 Compliance with the required checks must be noted in the aircraft logbook.

This means the aircraft must have a calibrated altimeter, airspeed indicator and fuel gauges (under Civil Aviation Order (CAO) 100.5 by a Licenced Aircraft Maintenance Engineer (LAME) using specialised equipment to complete such a task; and

If the controlled airspace in which the pilot intends to operate requires a transponder, the aircraft must be fitted with a suitable and calibrated transponder. Calibration must be carried out by a qualified avionics LAME.

CAO 95.55 which states that your RAAus registered aircraft must be either type certified, LSA (Light Sports Aircraft) e.g., 24 – xxxx, 55 – xxxx, 23 - xxxx, or amateur built e.g., 19 - xxxx registered.

The relevant CAO details the requirements below:

For the purposes of sub-subparagraph 9.1 (j) (ii), a person must not operate a relevant aeroplane in Class A, B, C or D airspace, or a restricted area unless:

(a) one of the following subparagraphs applies:

(i) a certificate of airworthiness under regulation 21.176 of CASR is in force for the aeroplane;

(ii) both of the following provisions apply:

(A) an experimental certificate under regulation 21.195A of CASR, or an SAB flight permit, is in force for the aeroplane;

(B) the requirements mentioned in paragraph 9.7 are complied with in relation to the aeroplane; and

(b) the aeroplane is fitted with a radio capable of two-way communication with air traffic control; and

(c) if the controlled airspace in which the aeroplane is operating requires a transponder to be fitted to the aeroplane — the aeroplane is fitted with a transponder that is suitable for use in the airspace; and

Note 1 Regulation 91.285 of CASR additionally requires a person to hold an approval under regulation 91.045 of CASR to conduct a VFR flight in Class A airspace.

Note 2 Certain ultralight aeroplanes operated by approved flight training schools may operate in Class D airspace in accordance with *CASA EX55/22 — Flight of Certain Ultralight Aeroplanes in Class D Airspace (Approved Flight Training Schools) Instrument 2022*.

What are the additional special requirements for amateur built aircraft?

Amateur built experimental aircraft may be permitted to fly in controlled airspace if the owner has been issued with specific exemption from CASA. Civil Aviation Safety Regulation (CASR) Part 91.050 or 91.060 permits flights over built-up areas of a city or town or where CASA or an authorised person deems it necessary for the safety of other airspace users or people on the ground or water. As CTA is generally associated with built-up areas, this requirement applies to amateur built aircraft. To apply for a 91.050 or 91.060 exemption submit an email to tech@raaus.com.au with your aircraft details. The aircraft must be fitted with an approved engine (which excludes aircraft fitted with automotive conversions such as VW, Subaru, Isuzu, etc.).

Australian airspace categories¹

In general terms RAAus pilots operate in Class G airspace, at private airstrips or airports which do not require radio, and airports which do require radio, such as CTAFs (Common Traffic Advisory Frequency). Below is a brief overview of the current airspace categories in Australia and information as to whether RAAus aircraft may operate in the airspace.

Class A: This high-level enroute controlled airspace is used predominately by commercial and passenger jets. Only Instrument Flight Rules (IFR) flights are permitted and they require an Air Traffic Control (ATC) clearance.

Note¹: At towered airports the class of airspace may change subject to the time of day.

All flights are provided with an air traffic control service and are positively separated from each other. As this is generally above 10,000 ft. Above Mean Sea Level (AMSL), which is a limitation of the Civil Aviation Orders (CAO) RAAus must operate under, RAAus aircraft will not operate in this airspace.

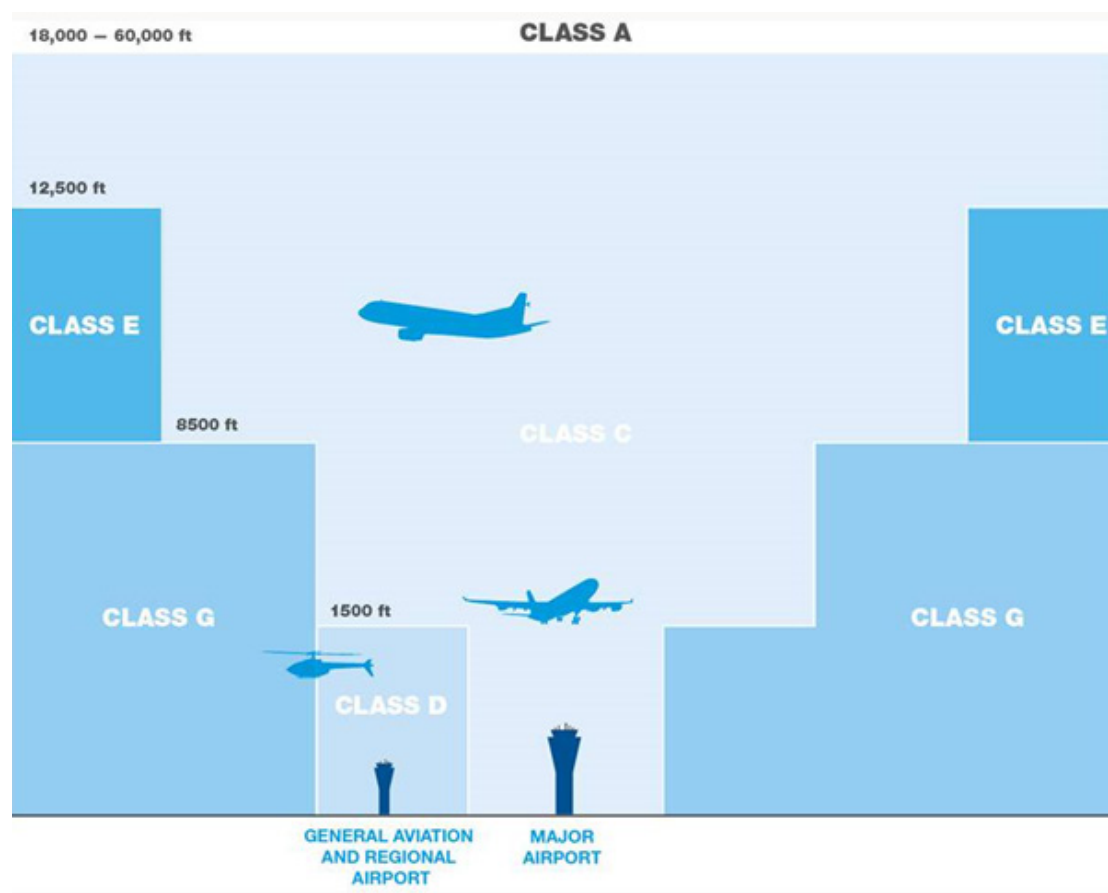
Class C: This is the controlled airspace surrounding major airports. Both IFR and Visual Flight Rules (VFR) flights are permitted and must communicate with air traffic control. IFR aircraft are positively separated from both IFR and VFR aircraft. VFR aircraft are provided traffic information on other VFR aircraft. Examples of Class C include Sydney (Kingsford Smith), Canberra, Tullamarine, etc. Transponder carriage is mandatory for all aircraft and RAAus aircraft may operate in this airspace if all the requirements provided above are met.

Class D: This is the controlled airspace that surrounds general aviation and regional airports equipped with a control tower. All flights require ATC clearance and RAAus aircraft may operate in this airspace if all the requirements provided above are met.

Class E: This mid-level enroute controlled airspace is available to both IFR and VFR aircraft. RAAus aircraft may operate in this airspace if a transponder is carried and operated. No clearance is required to operate in Class E.

Class G: This airspace is not controlled. Both IFR and VFR aircraft are permitted and neither require ATC clearance. Class G is the airspace most RAAus pilots operate in, which is for general operations in and around airports, CTAF operations occur, and no transponder is required, although if a transponder is fitted to the aircraft, it must be turned on (includes ALT) and squawking 1200.

<https://www.airservicesaustralia.com/about-us/our-services/how-air-traffic-control-works/how-airspace-ismanaged/>



Additionally, CASA defines active restricted military airspace (which is managed under controlled airspace protocols) as airspace which requires clearance and therefore RAAus pilots must comply with the CTA requirements outlined above. This includes Defence department managed airspace such as East Sale, Nowra, Williamstown, Pearce, Edinburgh, etc.

For more specific information on the requirements of airspace pilots are encouraged to refer to the latest version of the Visual Flight Rules Guide (VFRG) published by CASA classes-of-airspace/VFRG Airservices Australia also provides additional information about airspace in Australia - How airspace is managed – Airservices Australia (www.airservicesaustralia.com)

Transponders

While transponders are not required for operations in Class G airspace or at CTAFs, if an RAAus aircraft is fitted with a transponder, as provided in Aeronautical Information Publication (AIP) En-Route ENR 1.1 para 9.2. it is recommended for this to be operating and in Mode C (squawking altitude) for additional safety and the possibility of improved alerts.

Further information about use of transponders, carriage in RAAus aircraft and operations is provided in the CASA [Visual Flight Rules Guide](#) (VFRG).

RAAus also provides specific information about the programming of transponders in RAAus aircraft [May-2021-transponder-programming-and-hex-code-information.pdf](#) This includes the information about the Hex code (obtained directly from CASA) and the correct information which is required to be programmed.

Alternate means of operating in CTA

RAAus and CASA have also provided an alternate compliance process for flights in CTA as an RAAus pilot. RAAus has a significant number of Flight Training Schools (FTS) in CTA who provide RAAus flight training and private hire of RAAus aircraft under a CASA issued Instrument of Exemption. The student or pilot must operate under the supervision of the CFI limited to the specific locations. The Instrument permits flight training and private hire of the FTS RAAus aircraft by RAAus pilots, without a current CASA Licence. Flights may only be conducted in aircraft operated at the FTS, preventing the use of member's own aircraft.

For more information, members are encouraged to contact the CFI of the FTS at Class D airports including Bankstown, Moorabbin, Sunshine Coast, Townsville, Jandakot, etc.

What is a RAAP?

RAAus has developed Recreational Aviation Advisory Publications (RAAP) to provide helpful guidance material for the reporting requirements and member actions in the event of an accident or incident. RAAPs are designed to provide information that interprets RAAus Flight Operations and Technical Manual requirements, provides additional member information in addition to operational and training information to assist Instructors, Flight training Schools, Examiners and Approval holders.

A RAAP is an additional document provided to enhance understanding of operational requirements. They DO NOT replace the appropriate requirements contained in the Flight Operations Manual or any Flight Operations Bulletins that may be issued.

That's a WRAP!