Australian Government Civil Aviation SafetyAuthority



DISCUSSION PAPER DP 23140S

Access to Class C and Class D controlled airspace for sport and recreation aircraft

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Overview

This discussion paper (DP) examines the various requirements CASA has put in place relating to safe, efficient, and equitable access to controlled airspace and controlled aerodromes. Through understanding the objectives, we can explore whether alternative means might achieve the same outcomes without necessarily having the same rules.

This DP does not propose a specific policy approach or course of action. However, feedback will help clarify contemporary stakeholder views on this subject and inform our ongoing work into how CASA's regulatory framework can harmonise its responsibilities to ensure safe aviation operations and that Australian airspace is administered and used safely, while facilitating efficiency and equitable access.

Why are we consulting?

CASA is seeking feedback from all stakeholders on the current regulatory requirements for access to Class C and Class D controlled airspace, and whether there are alternatives to achieve the objectives relating to safe, efficient, and equitable access. This feedback is sought in the context of a proposed review of the airspace arrangements which should be put in place for sport and recreational aircraft which will operate under Part 103 of the CASR. Your feedback will assist CASA in exercising functions such as proposing changes to current or future regulatory arrangements. In addition to helping inform CASA, this also ensures CASA meets its obligation to consult (see section 16 of the *Civil Aviation Act 1988*).

Responses should be submitted through the online response form by 17 November 2023.

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1 Reference material

1.1 Acronyms

The acronyms and abbreviations used in this DP are listed in the table below.

Acronym	Description
AEL	Aviation English Language
AIP	Aeronautical Information Package
ATC	Air Traffic Control
CAR	Civil Aviation Regulations 1988
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulations 1998
DAH	Designated Airspace Handbook
DP	discussion paper
ERSA	Enroute Supplement Australia
GEL	General English Language
ICAO	International Civil Aviation Organisation
IFR	instrument flight rules
MOS	Manual of Standards
RPL	Recreational Pilot Licence
SARP	Standards and recommended practices
VFR	visual flight rules

1.2 References

Legislation

Legislation is available on the Federal Register of Legislation website https://www.legislation.gov.au/

Document	Title
Airspace Act 2007	Airspace Act 2007
Airspace Regulations 2007	Airspace Regulations 2007
Australian Airspace Policy Statement 2021	Australian Airspace Policy Statement 2021
Part 61 of CASR	Part 61— <u>Flight Crew Licensing</u>
Part 61 MOS	Part 61 Manual of Standards Instrument 2014
Part 91 of CASR	Part 91—General operating and flight rules

Document	Title
Part 91 MOS	Part 91 (General Operating and Flight Rules) Manual of Standards 2020
CAO 95.4	<u>Civil Aviation Order 95.4 (Exemptions from CAR and CASR — Sailplanes and Towing Aircraft) Instrument 2021</u>
CAO 95.4.1	Civil Aviation Order 95.4.1 - Exemption from the provisions of the Civil Aviation Regulations 1988 - Gliders engaged in charter operations (12/12/2004)
CAO 95.8	Civil Aviation Order 95.8 (Exemptions from CAR and CASR — Hang Gliders and Paragliders) Instrument 2021
CAO 95.10	CAO 95.10 (Exemptions from CAR and CASR — Microlight Aeroplanes)
CAO 95.12	CAO 95.12 (Exemptions from CAR and CASR — Gyroplanes Not Exceeding 250 kg)
CAO 95.12.1	CAO 95.12.1 (Exemptions from CAR and CASR — LSA Gyroplanes and ASRA-compliant Gyroplanes)
CAO 95.14	<u>Civil Aviation Order 95.14 - Exemption from the provisions of the Civil Aviation</u> <u>Regulations 1988 - Parasails & gyrogliders (12/12/2004)</u>
CAO 95.32	CAO 95.32 (Exemptions from CAR and CASR — Powered Parachutes and Weight-shift-controlled Aeroplanes)
CAO 95.54	Civil Aviation Order 95.54 (Part 131 Recreational Activity and Specialised Balloon Operations) Instrument 2021
CAO 95.55	CAO 95.55 (Exemptions from CAR and CASR — Certain Light Sport Aircraft, Lightweight Aeroplanes and Ultralight Aeroplanes)
CASA EX55/22	CASA EX55/22 — Flight of Certain Ultralight Aeroplanes in Class D Airspace (Approved Flight Training Schools) Instrument 2022
CASA EX04/22	CASA EX04/22 — Flight in Class D Airspace near Sunshine Coast Aerodrome (Sunshine Coast Sports Aviators) Instrument 2022
CASA EX162/21	CASA EX162/21 Flight of Relevant CAO 95.55 Aeroplanes in Class C Airspace at Canberra Aerodrome (Learn 2 Fly Canberra)

2 Introduction

Airspace over Australian territory is a national resource used by a diverse array of airspace users, ranging from commercial airlines carrying hundreds of passengers, to recreational pilots flying for enjoyment. Other users such as the military, flight schools, emergency services, tourism operators, aerial work operators and remotely piloted aircraft systems share Australia's airspace.

Australia administers 11% of the world's airspace.¹ Australia's geography means that our airspace is diverse, from very busy air routes to remote areas which are rarely traversed.

Australian airspace is divided into different classes in accordance with international standards. Operations in the different classes of airspace are determined by the category of aircraft operation (IFR, VFR), aircraft capability, avionics certification, qualifications held by the pilot and prescribed priorities.

Entry to controlled airspace, including Class C and Class D airspace, is available to pilots meeting the prerequisite medical standards, licencing competencies, operational preparedness, and aircraft equipage requirements. ATC will issue clearances consistent with prescribed conditions and priorities.

CASA is responsible for ensuring that Australian airspace is administered and used safely, effectively, and equitably. While safety remains paramount, CASA is also required to regard airspace as a national resource and foster equitable access to airspace for all users.^{2 3}

Following this consultation, we will publish a Summary of Consultation and all comments received on the discussion paper will be considered to inform future policy on access to Class C and Class D controlled airspace.

2.1 Issue and objectives

This DP aims to provide insight into the various requirements CASA has put in place relating to safe, efficient, and equitable access to controlled airspace and controlled aerodromes. These have generally been derived from ICAO Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services (PANS), and guidance materials, consistent with Australia's obligations under the Chicago Convention.

We aren't seeking to justify these requirements, but to explain their objectives. By understanding the objectives underpinning the requirements and their effectiveness, we can explore whether alternative means might achieve the same outcomes.

This DP is part of CASA's commitment to facilitate greater operational opportunities for sport and recreational aviation activities when safe to do so, as outlined in the General Aviation Workplan.

This DP does not propose a specific policy approach or course of action. Rather, questions are posed that are intended to assess stakeholder consensus around the high-level objectives

¹ AA (Airservices Australia) (ND) <u>Guide to our operations</u> p 3.

² Airspace Act 2007, Airspace Regulations 2007.

³ DITRDCA (The Department of Infrastructure, Transport, Regional Development, Communications and the Arts) (2021) <u>Australian Airspace Policy Statement</u>.

required and establish perspectives on whether extant regulatory arrangements meet these objectives or should be changed.

2.2 Background information about airspace

2.2.1 Different kinds of airspace

The growing development of air traffic around the world necessitated the introduction of globally standardised airspace rules to maintain a safe, proper, and regular air traffic flow. Different kinds of airspace with different requirements, privileges and limitations were created. These are referred to as 'classes' of airspace.

ICAO's 7 airspace classes⁴ are labelled Classes A, B, C, D, E, F and G, with Class A controlled airspace having the highest requirements and Class G uncontrolled airspace providing limited air traffic services to aircraft and having the lowest requirements.

Broadly, the higher specification airspace classes have higher aviation system safety and efficiency performance - albeit with an accompanying lack of flexibility and more onerous operating, pilot licencing and aircraft equipment requirements. Conversely, uncontrolled Class G airspace has an acceptable system safety performance but offers the maximum 'free flight' flexibility and lowest operating, pilot licencing and aircraft equipment requirements.

Uncontrolled airspace does not require clearance from air traffic control (ATC), but pilots must still follow rules on how to operate and effectively maintain separation in this airspace.

Within controlled airspace, users receive varying levels of air traffic services depending on the airspace classification. To enter controlled airspace, an aircraft usually must first gain a clearance from ATC.⁵ Aircraft operating in the higher controlled airspace classes often operate in more complex environments such as areas with high air traffic density and near high volume aerodromes. Aircraft operating in such controlled airspace typically include large passenger-carrying and other commercial aircraft.

By virtue of the higher levels of service inherent in controlled airspace, ATC manages the flow of aircraft, provides separation services, monitors aircraft positions and activity, and provides instructions to maintain safe and efficient operations. ATC also enhances efficiency by setting routes, applying flow sequences and distances between aircraft, and prioritising aircraft based on operational requirements, ATC workload, and general and prescribed AIP priorities.⁶ The AIP prescribed priorities are reproduced in Appendix B.

Despite the different types of operations within controlled airspace (e.g., commercial operations, general aviation), everyone needs to have the competency and capacity to conduct their operations to a minimum standard. This helps ensure that the safety and efficiency benefits of controlled airspace are achieved.

⁴ Annex 11, Chapter 2, Section 2.6 and Appendix 4

⁵ VFR flights in Class E controlled airspace do not need to receive ATC clearance before entering the airspace.

⁶ Refer to AIP Section 7, Regulation of Flight - Assessment of Priorities, ENR 1.4-16 and 17.

2.2.2 Australia's airspace

In Australia, airspace is defined as the volumes of space above ground level as designated under the *Airspace Act 2007*. Airspace has both horizontal and vertical dimensions. Australia's airspace is classified into different classes which can be generally described as either 'controlled' or 'uncontrolled'. CASA's Office of Airspace Regulation (OAR) carries out the duties assigned to CASA under the *Airspace Act 2007*.

The OAR adopts a pragmatic, practical and proportionate approach to application of airspace reform and airspace management. Noting that an airspace is rarely limited to a single user class, the designation of controlled airspace is agnostic of a particular sector and must meet the needs of all potential users, not just a few. It is the risk and impact on safety and overall performance (including efficiency) of that airspace that drives the airspace classification.

Safety is the primary consideration. Other aspects that are collectively considered by the OAR include⁷:

- air traffic control services and facilities needed in the airspace
- efficient use of airspace
- equitable access for all airspace users
- cost implications for all airspace users
- advances in aviation technology on the ground and in the air
- capacity of Australian-administered airspace to accommodate changes in its use
- national security.

Airspace administration in Australia is generally aligned with the ICAO prescribed airspace classes and associated levels of service as set out in ICAO Annex 11, from which, 'States shall select those airspace classes appropriate to their needs'. Australia has deployed 5 of the ICAO classes (no Class B or Class F) to meet our national needs. The architecture and classes of airspace in Australia are based on the assessed level of risk to airspace users and the consequent need for air navigation services to support safety outcomes.

Depending on the geographic location and how high an aircraft is flown, the aircraft will generally pass through different classes of airspace, in which different rules and levels of air traffic service will apply. The level of service an aircraft receives from ATC (e.g., separation service, flight information service, traffic information service) will be determined by the classes of airspace in which it operates, and whether the flight is operating under the IFR or VFR category.

The classes of airspace in Australia and their general characteristics are:

- Class A controlled airspace is high-level enroute airspace primarily used by higherperformance aircraft. Only IFR flights are permitted, VFR flights are not permitted. All flights require an ATC clearance. All flights are provided with all ATC services and are separated from each other.
- Class C controlled airspace is typically used around major airports. Both IFR and VFR flights are permitted and must communicate with ATC. All flights require ATC clearance. IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights.

⁷ Section 12, Airspace Act 2007

- Class D controlled airspace is typically used around smaller airports. All flights require ATC clearance and are provided with an ATC service. IFR flights are separated from other IFR flights and receive traffic information in respect of VFR flights. VFR flights receive traffic information in respect of all other flights.
- Class E airspace is controlled airspace. Both IFR and VFR flights are permitted. IFR flights are provided with an ATC service and must request ATC clearance. VFR flights do not require an ATC clearance; however, they must be equipped with a radio and transponder. IFR flights receive traffic information as far as is practicable. VFR flights receive traffic information, ATC workload permitting.
- Class G is uncontrolled airspace. ATC clearances are not required. IFR and VFR flights are permitted. IFR flights are provided with a flight information service, and VFR flights are provided with a flight information service if requested, but pilots are generally responsible for their own separation and navigation in Class G airspace.⁸

Appendix A to this DP includes a visual explanation of the typical disposition of Australia's airspace classes. The <u>Australian Airspace Structure</u> resource also summarises the classes of airspace and the operational requirements, communications and surveillance equipage required.⁹

No operation has an unfettered right to access controlled airspace (except for VFR in Class E). Entry into controlled airspace is subject to prerequisite pilot licencing, aircraft certification/approval¹⁰, aircraft equipment requirements and the application of prescribed priorities and traffic flow considerations by ATC. Except for VFR in Class E controlled airspace, all flights wishing to operate in controlled airspace must receive a clearance from ATC, which will include prescriptive and mandatory directions about the permitted altitude, course and speed of the aircraft. When issuing a clearance, ATC must consider AIP priorities and a variety of considerations, including those prescribed in the Manual of Air Traffic Services.¹¹

This is different from operating in uncontrolled airspace (and for VFR in Class E controlled airspace) where the pilot can navigate under their own discretion and must self-avoid all other traffic.

2.2.3 Equitable access to airspace

While safety remains paramount, the *Airspace Act 2007* requires CASA to foster efficient airspace use and equitable access to airspace for all users when administering Australia's airspace.

A notion of equal access to airspace would recognise, broadly, that the airspace and air traffic services used by a light aircraft flying for recreational purposes with 2 persons on board are of similar magnitude to the airspace and air traffic services used by a large passenger airliner with 300 persons on board engaged in commercial air transport. However, a notion of equity would recognise that the large passenger airliner seeking to enter the airspace used by the recreational flight does so from a different footing. Whereas equality means providing the same to all, equity means recognising that all airspace users do not start from the same place, and that the

⁸See section 17 of the <u>Australian Airspace Policy Statement 2021</u>.

⁹CASA (Civil Aviation Safety Authority) (ND) <u>Australian Airspace Structure</u>.

¹⁰ For example, 91.045 - flight over populous area approval for experimental aircraft

¹¹ Manual of Air Traffic Services (MATS), Chapter 9 Control Practices, Section 9.2 Clearances.

respective 'equity claims' on the airspace by various users need to be assessed in terms of overall fairness.

The consideration of equitable access is relevant to this DP and can be summarised as an approach which recognises that different airspace users have varying needs, capabilities, operational requirements and applicable priorities. It aims to ensure that each user has a fair opportunity to access and utilise airspace in a manner that suits their specific mission, whilst balancing the concurrent needs and equity of other users of the same airspace and ensuring that aviation system safety is maintained. This approach allows for tailored requirements that consider the unique characteristics of each type of airspace user.

The intention of this approach is not to allow all users to access any/all controlled airspace under any/all circumstances. Rather, having established that the pilot/aircraft is capable of complying with the appropriate conditions, regulations, equipment/performance requirements and processes defined for the specific airspace in which operations are proposed, the equity of the request for airspace access needs to be considered against the requests from other users and a priority determined.

Consequently, access to Class C and Class D airspace is already available to pilots/aircraft that meet the pilot medical, pilot licencing, aircraft equipment and operational requirements specified for these airspaces. A clearance from ATC reflecting appropriate priorities and ATC workload will be issued consistent with all other users of that airspace.

Throughout any consideration and application of potential changes to equitable access concepts and practices, it is essential that an equivalent level of safety to that inherent in the current regulations and operational approaches is achieved, even if this is through different pathways or mechanisms. This DP seeks input on how equitable access could be facilitated whilst ensuring an equivalent level of safety.

3 Discussion

CASA has put requirements in place to fulfil its responsibility to ensure that Australian airspace is administered and used safely and efficiently, while also regarding airspace as a national resource and fostering equitable access to airspace for all users.

Established requirements relating to pilot competencies, radio competencies, English language proficiency, medical fitness and aircraft equipment are currently the established means for pilots/aircraft to access and operate safely in Class C and Class D controlled airspace and at controlled aerodromes.

The following sections outline the objectives underpinning these requirements and how they are reflected in rules for pilots authorised under the Part 61 licensing scheme, and for pilots authorised by a Part 149 Approved Self-administering Aviation Organisation (ASAO).

We aren't seeking to justify these requirements, but to prompt reflection and feedback on whether:

- the underpinning objectives are appropriate and reasonable
- the current requirements reflect these objectives
- alternative methods could achieve the objectives.

Pilot competencies

Pilots who operate in Australian airspace need specific competencies to preserve individual and aviation system safety and to ensure operations are conducted efficiently. The objectives of these established competencies are to ensure pilots:

- have navigational proficiency (including flight planning, an awareness of navigational tolerances and proficiency in navigating in all dimensions [lateral, longitudinal, vertical and time]) and the ability to understand and comply accurately with ATC instructions on assigned routes and altitudes to avoid conflicting with other aircraft
- can implement emergency procedures and communicate with ATC
- understand and have awareness of weather conditions and the ability to plan the flight to avoid entering controlled airspace without appropriate clearance
- are aware that entry to controlled airspace is subject to receiving clearance from ATC¹²—the height, direction and speed of an aircraft is at the direction of ATC
- have knowledge of AIP, including DAH, ERSA and NOTAM, and the ability to understand those resources and apply them to the operation
- can identify and notify when compliance with ATC instructions cannot be met
- can communicate with ATC and other airspace users using aviation-specific phraseology
- are adequately prepared to manage traffic diversity, density, and complexity in a dynamic and changing environment.

These competencies are critical for operations in controlled airspace where multiple aircraft can operate in close proximity. They have been developed to reduce the risk of mid-air collisions, prevent accidents and incidents, ensure the efficient use of airspace resources, and maintain the

¹² Except for VFR in Class E controlled airspace.

high operational standards required in controlled airspace environments.

Part 61 pilots

A pilot licensed under Part 61 of CASR must demonstrate competence before operating in controlled airspace. This is done by demonstrating competencies in the standards set out in units 'CTR Operate at a controlled aerodrome' (CTR) and 'CTA Operate in controlled airspace' (CTA) in the Part 61 MOS.

The recreational pilot licence (RPL) does not automatically include operating in controlled airspace as a privilege of the licence. RPL licence holders can gain the controlled aerodrome endorsement and controlled airspace endorsement by completing units CTR and CTA, which allows the pilot to operate in controlled airspace and at controlled aerodromes.

All other licences also require the holder to have demonstrated competence in Part 61 MOS units CTR and CTA.

The Part 61 training pathway emphasises the importance of planning and applying a structured approach to operating in controlled airspace environments. The behaviours and competencies expected of pilots operating in controlled environments build on the piloting competencies and responsibilities expected of recreational pilots. Operating in controlled environments is more structured and formal, more demanding and with an increased emphasis on safety awareness and the willingness to self-report errors or any inability to comply with ATC instructions. The training provided through the Part 61 pathway ensures that pilots meet these competency outcomes.

Sport and recreational pilots (ASAO authorised)

Sport and recreational pilots currently operating aircraft under certain Civil Aviation Orders (CAOs) need to meet the same competency standards as a Part 61 licence holder prior to operating in controlled airspace. Most sport and recreation pilots are required to hold a current Part 61 licence which permits operations in controlled airspace and at controlled aerodromes.¹³

There are limited exceptions to the requirement to hold a Part 61 licence. For example, pilots flying sailplanes under the administration of the Gliding Federation of Australia (GFA) can enter and exit the Class D airspace surrounding Camden aerodrome under a letter of agreement with Airservices Australia and pilots of hang gliders and paragliders may be flown in Class C or D

¹³ See:

<u>Civil Aviation Order 95.8 (Exemptions from CAR and CASR — Hang Gliders and Paragliders) Instrument</u> 2021: paragraph 10.2 (a).

CAO 95.10 (Exemptions from CAR and CASR — Microlight Aeroplanes) paragraph 10.2 (c).

CAO 95.55 (Exemptions from CAR and CASR — Certain Light Sport Aircraft, Lightweight Aeroplanes and Ultralight Aeroplanes) paragraphs 9.2 (d) and (e).

CAO 95.32 (Exemptions from CAR and CASR — Powered Parachutes and Weight-shift-controlled Aeroplanes) paragraphs 8.2 (d) and (e).

CAO 95.12 (Exemptions from CAR and CASR — Gyroplanes Not Exceeding 250 kg)[:] paragraphs 11.2 (d) and (e).

CAO 95.12.1 (Exemptions from CAR and CASR — LSA Gyroplanes and ASRA-compliant Gyroplanes): paragraphs 12.2 (c) and (d).

These provisions generally provide that a person must not operate in Class C or D airspace or a restricted area unless the person 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 has a valid flight review for the aircraft class rating in accordance with Part 61 of CASR.

airspace that is below 300 feet above ground level and not within 10 nautical miles of a controlled aerodrome.¹⁴ In addition, some Recreational Aviation Australia (RAAus) solo training flights and private hire flights may be conducted in Class D airspace without the pilot holding a Part 61 licence under <u>CASA EX55/22</u> — Flight of Certain Ultralight Aeroplanes in Class D Airspace (Approved Flight Training Schools) Instrument 2022, or in Class C airspace under <u>CASA EX162/21 Flight of Relevant CAO 95.55 Aeroplanes in Class C Airspace at Canberra Aerodrome (Learn 2 Fly Canberra)</u>, so long as certain competency requirements in units CTR and CTA of the Part 61 MOS are met.

Questions for consideration and feedback

- Are the overall competencies for pilots to operate in controlled airspace and at controlled aerodromes appropriate and reasonable?
- Do the competency standards for CTR and CTA (in the Part 61 Manual of Standards) reflect the objectives?
- Do you have any suggestions or alternative methods, in relation to overall pilot competencies, for achieving the objective of safe operations in controlled airspace and at controlled aerodromes?

Radio competencies and English language proficiency

Pilots who operate in controlled airspace must be competent in operating radio equipment under both normal and emergency conditions. Correspondingly, pilots need to be able to communicate clearly and competently in English, including using aviation terminology and phraseology. These competencies ensure pilots:

- can communicate effectively with ATC using proper terminology and phraseology, clear and concise messages, and receive and comply with ATC clearances and instructions promptly and accurately. This allows ATC to coordinate and manage traffic and separation, reduces the risk of misunderstanding or conflicts, and reduces the risk of frequency congestion
- can communicate effectively with other airspace users to communicate their intentions, requests, and position reports. This minimises the risk of incidents or accidents and promotes orderly traffic flows
- are aware of other aircraft in their vicinity through "alerted see-and-avoid", leading to greater situational awareness and improved safety
- are competent to operate all equipment fitted to the aircraft. This ensures that pilots can understand and comply with ATC instructions such as changing the transponder code to facilitate ATC surveillance.

¹⁴ Civil Aviation Order 95.8 (Exemptions from CAR and CASR — Hang Gliders and Paragliders) <u>Instrument 2021</u> subparagraph 10.1 (k)(ii).

See also CASA EX04/22 — Flight in Class D Airspace near Sunshine Coast Aerodrome (Sunshine Coast Sports Aviators) Instrument 2022.

All pilots – irrespective of licence type – are required to continuously monitor communications while in controlled airspace¹⁵ and comply with requirements for ATC clearances and readbacks while operating in any controlled airspace or at a controlled aerodrome¹⁶.

Part 61 pilots

A pilot licensed under Part 61 of CASR must demonstrate competency in operating radio equipment and being able to communicate clearly and competently in English. This is done by demonstrating competency in the standards set out in units 'RARO RPL aeronautical radio operator', 'C1 Communicating in the aviation environment', 'C3 Operate aeronautical radio' and 'RNE Radio navigation – enroute' of the Part 61 MOS.

Unit 'GEL General English language proficiency' of the Part 61 MOS sets out the general English language proficiency standard that applies to student pilots and RPL holders. The GEL standard is set by government as the minimum English language standard for people undertaking study or learning. Unit 'AEL Aviation English language proficiency' describes the minimum aviation English language proficiency required for all other flight crew licences and for obtaining recreational pilot licence endorsements.

RPL licence holders can gain the flight radio endorsement by completing units RARO, C1 and C3 in the Part 61 MOS. Applicants for the flight radio endorsement need to meet the AEL standard. This endorsement allows the pilot to transmit on an aviation safety radio frequency.¹⁷

All other licences also require the holder to have demonstrated competency in units C1, C3 and RNE in the Part 61 MOS prior to the grant of the licence.

The outcome of this is that pilots licensed under Part 61 of CASR are required to have been trained and deemed competent in operating aircraft radio equipment and communicating in English before they can operate in controlled airspace environments.

Sport and recreational pilots (ASAO authorised)

Sport and recreational aircraft operating in controlled airspace need to carry radiocommunications equipment capable of two-way communication with ATC, and the pilot needs to be authorised to operate the radio equipment. If transmitting on a VHF frequency, the pilot must be authorised under Part 61 of CASR or a relevant sport aviation body.¹⁸ If

¹⁵ Regulation 91.635 of CASR.

¹⁶ See sections 11.12, 11.13 and 21.05 of the Part 91 Manual of Standards.

¹⁷ See also regulation 91.625 of CASR, which prohibits a person from transmitting on certain radio frequencies if the person is not authorised or qualified to do so. ¹⁸ See:

<u>Civil Aviation Order 95.8 (Exemptions from CAR and CASR — Hang Gliders and Paragliders) Instrument</u> 2021: paragraph 10.2 (b); subsections 6.2 and 10.4.

CAO 95.10 (Exemptions from CAR and CASR — Microlight Aeroplanes) paragraph 10.2 (b); subsections 7.2 and 10.3.

CAO 95.55 (Exemptions from CAR and CASR — Certain Light Sport Aircraft, Lightweight Aeroplanes and Ultralight Aeroplanes) paragraph 9.2 (b); subsections 5C.2, 9.4.

CAO 95.32 (Exemptions from CAR and CASR — Powered Parachutes and Weight-shift-controlled Aeroplanes) paragraph 8.2 (b); subsections 5C.2, 8.3.

CAO 95.12 (Exemptions from CAR and CASR — Gyroplanes Not Exceeding 250 kg) paragraph 11.2 (c); subsections 7.2, 11.3.

transmitting on an aeronautical HF frequency, the pilot must be authorised to transmit using an aeronautical radio under Part 61 or Part 64 of CASR.

The competency standards to be authorised to transmit using radio equipment under a sport aviation body are intended to align with those in the Part 61 MOS. Meeting these competencies is an important factor to promote consistency and ensure pilots operating in controlled airspace can do so safely.

Questions for consideration and feedback

- Are the overall competencies for radio and English language competency standards appropriate and reasonable?
- Do the competency standards for operating radio equipment (in the Part 61 Manual of Standards) reflect the objectives?
- Do the competency standards for 'AEL Aviation English language proficiency' (in the Part 61 MOS) reflect the objectives?
- Do you have any suggestions or alternative methods, in relation to radio competencies, for achieving the objective of safe operations in controlled airspace and at controlled aerodromes?

Medical fitness

Medical standards are a precursor to exercising the privileges of a pilot licence and are put in place to control the risk of incidents or accidents caused by pilots experiencing in-flight impairment, incapacitation, or any other medical-induced issue which may impact on aviation safety. ATC would be obliged to manage this risk, potentially by diverting all other aircraft around an aircraft whose pilot appears to be experiencing a medically induced incapacitation, impairment, or issue.

CASA has concurrently released a related policy proposal on the proposed <u>Class 5 medical self-</u> <u>declaration scheme</u> for public consultation. We welcome your feedback on this discussion [link to consultation]

The proposed new Class 5 medical self-declaration aims to provide pilots conducting private operations with a more streamlined and efficient medical certification pathway that is self-assessed and self-certified within a risk-based and quality and assurance governance framework aimed at assuring aviation safety.

Part 61 pilots

Currently, recreational pilot licence holders under Part 61 of CASR can exercise the privileges of the licence if they hold either a current class 1 or 2 medical certificate, hold a current recreational aviation medical practitioner's certificate, or hold a medical exemption for the exercise of the privileges of the licence.¹⁹

CAO 95.12.1 (Exemptions from CAR and CASR — LSA Gyroplanes and ASRA-compliant Gyroplanes): paragraphs 12.2 (b); subsections 6.2, 12.3.

¹⁹ Regulation 61.405 of CASR. There are additional requirements to be met if the pilot holds a recreational aviation medical practitioner's certificate.

There are some limitations (which are not relevant to the controlled airspace discussion) for RPL holders who wish to pilot an aircraft carrying more than one passenger or pilot an aircraft above 10 000 ft above mean sea level but does not hold a current class 1 or 2 medical certificate. In these circumstances, the

Currently, private pilot licence (PPL) holders can exercise the privileges of the licence if they hold either a current class 1 or 2 medical certificate, a current recreational aviation medical practitioner's certificate, or a medical exemption for the exercise of the privileges of the licence. If using a current recreational aviation medical practitioner's certificate, a pilot can only conduct a flight by day under the VFR.²⁰ Private pilot licence holders can exercise the privileges of the licence in certain circumstances and subject to conditions if the pilot holds a current Aviation Medical Certificate (Basic Class 2).²¹

The holder of a commercial pilot licence, multi-crew pilot licence or air transport pilot licence can exercise the privileges of the licence only if the holder also holds a current class 1 medical certificate or a medical exemption for the exercise of the privileges of the licence.²²

The impact is that pilots licensed under Part 61 of CASR need to meet an increasingly higher medical standard if they wish to conduct activities with increasingly higher safety consequences (such as aerobatics, low-level flight, flight instruction, operations above 10 000 feet or operations with multiple passengers).

Sport and recreational pilots (ASAO authorised)

Some sport and recreational pilots are limited to operating outside controlled airspace as they operate under a self-declared driver's licence medical standard. Currently, sport and recreational pilots who wish to operate in Class C or D airspace or a military restricted area effectively need to meet the same medical standards as pilots licensed under Part 61 of CASR.

This is because these pilots generally need to hold a pilot licence with an aircraft category rating that permits the pilot to operate in controlled airspace and at a controlled aerodrome and have a valid flight review for the aircraft class rating in accordance with Part 61 of CASR.²³ According to those standards, the privileges of a pilot licence are not able to be exercised unless the pilot has the pre-requisite current medical certificate.²⁴

Changes settled consequent to CASA's proposals for the Class 5 medical self-declaration scheme currently in consultation may impact extant arrangements.

Questions for consideration and feedback

• Are the objectives for medical fitness appropriate and reasonable?

pilot needs to be accompanied by another pilot who holds a current class 1 or 2 medical certificate, occupies a flight control seat, and is authorised to pilot the aircraft. These limitations emphasise the importance of having a pilot who meets the class 1 or 2 medical standard available to pilot the aircraft to mitigate the risk of the RPL holder experiencing in-flight incapacitation or a medical incident while conducting a higher consequence flight (carrying passengers) or higher risk flight (above 10 000 ft). ²⁰ Regulation 61.410 of CASR.

²¹ CASA EX69/21 — Medical Certification (Private Pilot Licence Holders with Basic Class 2 Medical Certificate) Exemption 2021.

²² Regulation 61.415 of CASR. See also <u>CASA EX28/23</u> — <u>Class 1 Medical Certificate (Certain Flights by</u> <u>Holders of a Commercial Pilot Licence or Air Transport Pilot Licence) Exemption 2023</u>, which permits some non-passenger carrying commercial flights to be conducted with a class 2 medical certificate rather than a class 1 medical certificate.

²³ See footnote 8.

²⁴ Some solo training flights and private hire flights may be conducted in Class D airspace under CASA EX55/22 — Flight of Certain Ultralight Aeroplanes in Class D Airspace (Approved Flight Training Schools) Instrument 2022, or in Class C airspace under CASA EX162/21 Flight of Relevant CAO 95.55 Aeroplanes in Class C Airspace at Canberra Aerodrome (Learn 2 Fly Canberra), if the pilot holds a medical certificate described under Part 61.

- Do the current requirements reflect the objectives?
- Do you have any suggestions or alternative methods or achieving the objectives?

Aircraft equipment

Aircraft operating in controlled airspace or at controlled aerodromes are required to carry equipment such as radiocommunication and surveillance equipment. This ensures that pilots are contactable and can engage with ATC and other airspace users, and that the aircraft can be surveilled or detected (where applicable). The intended objectives are to ensure:

- pilots can readily receive and understand instructions and clearances from ATC, and provide required reports and readbacks to ATC
- pilots can communicate with each other when necessary to enhance situational awareness and coordinate to avoid conflicts
- visibility to ATC of aircraft operating in controlled airspace, particularly in situations of high traffic density or complex operations. This helps ATC track and separate aircraft and manage the airspace efficiently
- an aircraft and equipment fitted to an aircraft meets serviceability and reliability requirements needed to operate in controlled airspace. For example, the ability for an aircraft to maintain height and track, and for an altimeter to operate within tolerances help ensure safety while operating in controlled airspace.

While there are different equipment certification requirements between type-certified and light sport/experimental aircraft, the carriage and performance requirements for aircraft equipment are generally the same for aircraft with a VH registration or aircraft administered by an ASAO.

VH-registered aircraft

Generally, aircraft with a VH registration that are being operated in controlled airspace and over populous areas²⁵ need to be fitted with radiocommunication and surveillance equipment that meets known certification requirements. For example, section 26.18 of the Part 91 MOS requires most aircraft to be fitted with radiocommunication systems which meet specified requirements.²⁶ In addition, aircraft operated in controlled airspace generally need to have a prescribed form of surveillance equipment on board, either an approved ADS-B OUT equipment configuration, approved transponder or approved integrated TABS device.²⁷

Sport and recreational aircraft (ASAO authorised)

Sport and recreational aircraft operating in controlled airspace need to carry radiocommunications equipment capable of two-way communication with ATC, and the pilot needs to be authorised to operate the radio equipment. If transmitting on a VHF frequency, the pilot must be authorised under Part 61 or a relevant sport aviation body to transmit on a VHF frequency.²⁸

²⁵ Experimental aircraft are required to hold 91.045 approval to operate over populous areas.

²⁶ Altitude alerting equipment is also prescribed for some aircraft operating in limited circumstances, however this is not relevant for the purpose of this discussion paper.

²⁷ See sections 26.68, 26.68A and 26.69 of the Part 91 MOS.

²⁸ See:

In addition, sport and recreational aircraft operating in some controlled airspace may need to be equipped with a transponder.²⁹ The equipment requirements set out in the relevant CAOs apply similar equipment requirements to those specified in the Part 91 MOS for aircraft conducting operations other than air transport operations in VH-registered aircraft.

Questions for consideration and feedback

- Are the objectives for requiring aircraft to be fitted with nominated equipment suitable?
- Are the current requirements suitable?
- Do you have any suggestions or alternative methods for achieving the objectives?

Priorities for Class C and Class D access

One of the considerations in classifying controlled airspace, including Class C and Class D airspace, is that of equitable access. As there will be a variety of users within any single class of controlled airspace, the designation of controlled airspace is intended to equitably meet the needs of all potential users, not just a few. Consequently, in the operational context, the relative equity of users must be assessed on a real time basis, priorities determined, and flights accommodated by ATC accordingly.

From a strategic perspective, priorities have been promulgated at the general and specific level in the AIP. At the tactical level, the principal consideration is that of ATC workload. This is largely a manifestation of the first of the 3 specifications nominated by ICAO for controlled airspace ensuring separation between aircraft to avoid collisions.

<u>Civil Aviation Order 95.8 (Exemptions from CAR and CASR — Hang Gliders and Paragliders) Instrument</u> 2021: paragraph 10.2 (b); subsections 6.2 and 10.4.

CAO 95.10 (Exemptions from CAR and CASR — Microlight Aeroplanes) paragraph 10.2 (b); subsections 7.2 and 10.3.

CAO 95.55 (Exemptions from CAR and CASR — Certain Light Sport Aircraft, Lightweight Aeroplanes and Ultralight Aeroplanes) paragraph 9.2 (b); subsections 5C.2, 9.4.

CAO 95.32 (Exemptions from CAR and CASR — Powered Parachutes and Weight-shift-controlled Aeroplanes) paragraph 8.2 (b); subsections 5C.2, 8.3.

CAO 95.12 (Exemptions from CAR and CASR — Gyroplanes Not Exceeding 250 kg) paragraph 11.2 (c): subsections 7.2, 11.3.

CAO 95.12.1 (Exemptions from CAR and CASR — LSA Gyroplanes and ASRA-compliant Gyroplanes): paragraphs 12.2 (b); subsections 6.2, 12.3.

²⁹ The following provisions provide that if the controlled airspace in which the aircraft is operating requires a transponder to be fitted, the aircraft must be fitted with a transponder that is suitable for use in the airspace:

<u>CAO 95.10 (Exemptions from CAR and CASR — Microlight Aeroplanes)</u> paragraph 10.2 (e). <u>CAO 95.55 (Exemptions from CAR and CASR — Certain Light Sport Aircraft, Lightweight Aeroplanes and Ultralight Aeroplanes)</u> paragraph 9.2 (c).

CAO 95.32 (Exemptions from CAR and CASR — Powered Parachutes and Weight-shift-controlled Aeroplanes) paragraph 8.2 (c).

CAO 95.12 (Exemptions from CAR and CASR — Gyroplanes Not Exceeding 250 kg): paragraph 11.2 (f). CAO 95.12.1 (Exemptions from CAR and CASR — LSA Gyroplanes and ASRA-compliant Gyroplanes): paragraphs 12.2 (e).

Air traffic control service (ATC) - ensuring separation between aircraft to avoid collisions. Questions for consideration and feedback

- Are the objectives for Class C and Class D access priorities suitable?
- Are the current requirements suitable?
- Do you have any suggestions or alternative methods for achieving the objectives?

4 Submitting your view and what next

We ask you to review the information and provide your feedback regarding the matters and questions that have been presented. We are interested to learn whether:

- the objectives outlined above are suitable
- the requirements outlined above achieve their stated objectives
- the objectives could be achieved differently.

Your feedback will help inform our ongoing work into how CASA's regulatory framework can harmonise its responsibilities to ensure Australian airspace is administered and used safely, while facilitating equitable access.

We are also open to receive more generalised feedback around access to controlled environments, particularly if regulatory settings are to be changed in the future. For example:

- how do you consider the aviation community could be impacted?
- how could you and/or your business be impacted?
- how do you consider different industry sectors could be impacted?
- how do you consider aviation safety could be impacted?
- how do you consider the environment could be impacted?

Although CASA may not be the entity responsible for carrying out changes arising from more generalised feedback, CASA will ensure that the appropriate entity is referred any relevant feedback.

Responses should be submitted using the online response form by 17 November 2023. The online response form is available at the CASA Consultation Hub.

Appendix A

How airspace is managed



Source: <u>Airservices Australia - How airspace is managed³⁰</u>

³⁰ This image has been edited from the original to simplify the visual explanation of Australia's airspace classes. The original can be found at <u>https://www.airservicesaustralia.com/about-us/our-services/how-air-traffic-control-works/how-airspace-is-managed/</u>.

Appendix B

AIP ENR Section 7, Regulation of Flight -Assessment of Priorities (ENR 1.4-16 & 17)

7.1 Subject to the duty to facilitate and maintain the safe, orderly and expeditious flow of air traffic, ATC will apply priorities in the following order:

- a. An aircraft in an emergency, including being subjected to unlawful interference, will be given priority in all circumstances.
- b. A multi-engined aircraft which has suffered the loss of an engine and has not been subject to a SAR phase, or has not been considered under the provision of sub-para a. above, shall be granted priority for landing.
- c. An aircraft which has suffered radio communications failure will be granted priority for landing.
- d. An aircraft participating in a Search and Rescue (SAR), Medical (MEDEVAC), or Fire and Flood Relief (FFR) flights shall be granted priority as necessary.
- e. An aircraft operating under police callsign "POLAIR RED" or "FEDPOL RED" engaged in operations where life is at risk.
- f. An aircraft engaged in the personal transport of Heads of State or of Government, or other selected dignitaries on official visits to Australia, or the personal transport of the Governor-General or the Prime Minister.
- g. State aircraft special requirements flights where clearance has been prearranged.

7.2 Subject to the priorities of para 7.1, an aircraft first able to use the manoeuvring area or desired airspace in the normal course of its operations will be given priority except:

- a. an aircraft landing or taking off will be given priority over taxiing aircraft.
- b. a landing aircraft will have priority over a departing aircraft if the latter cannot take off with prescribed separation standards.
- c. for flights in Class C terminal control areas associated with Brisbane, Melbourne, Perth and Sydney, ATC will apply priorities in the following order;
 - i. with equal priority, flights compliant with their ATFM requirements, flights exempt from ATFM measures and Medical Aircraft (HOSP) operations; and
 - ii. flights not compliant with their ATFM requirements;
 - iii. all other aircraft.

Note: Further information about ATFM procedures at Australian airports is available at ENR 1.9.

- d. for flights in other Class C terminal control areas, ATC will apply priorities in the following order:
 - i. with equal priority flights with a Calculated Off Blocks Time (COBT), regular public transport operations, State aircraft (other than training flights) and Medical Aircraft (HOSP) operations; and
 - ii. all other aircraft
- e. RVSM-approved aircraft will be given priority for level requests between FL290 and FL410 inclusive over aircraft not RSVM-approved;
- f. within ATS surveillance system coverage, identified aircraft may be given priority over non-identified aircraft;

inside military airspace surrounding a military aerodrome, priorities will be determined by the controlling or administrating authority published in DAH. Military aerodromes do not include Darwin or Townsville;

g. for training flights;

- i. training flights operating in the traffic pattern in general use will be given priority over other training flights desiring to operate in conflicting patterns for training purposes; and
- ii. when a training instrument approach is approved, priority will be given to that aircraft from the time it commences its final approach until the approach is completed.