Aviation Safety Committee Paper

ASC Meeting No. 55 – 14 February 2023
Canberra

Agenda Item:	**6**
Board Action:	**Decision**
Subject:	**Class 4 Aviation Medical Certificate Model**
Origin:	Policy proposal
Prepared by:	Client Services Centre – Aviation Medicine

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Desired Outcome:

1. For ASC to endorse the progression of work towards the proposed Class 4 aviation medical certificate under Part 67 with a view to implementation by instrument in late 2023, prior to the making of the new Part 67, likely to be in late 2024 or 2025.

Executive Summary:

2. A self-declared aviation medical certificate under Part 67 of the Civil Aviation Safety Regulations (CASRs) is an important step in the modernisation of recreational aviation medical certification in Australia.
3. For safe and effective implementation in a timely manner, CASA Avmed, with industry support, proposes a Class 4 self-declared medical certificate using a fit-for-purpose standard that is supported by a suite of guidance materials and training for the pilot and their Specialist General Practitioner (SGP).

Background:

1. Over the past two decades, multiple stakeholders and participants in the Australian private and recreational aviation community have identified the importance of a self-declared aviation medical certificate. Stakeholders have sought alignment with other similar regulators including the Federal Aviation Administration (FAA), Civil Aviation Authority (CAA) United Kingdom, CAA New Zealand and Transport Canada. While each of these regulators' models has merits, none of them have the scope and flexibility that CASA is seeking. **Attachment A** details the differences in the key medical certification features of private and recreational type certificates, demonstrating the benefit of the CASA proposed approach.
2. Various approaches to self-declared medicals over the last two decades have been implemented external to Part 67 in an attempt to provide an accessible, flexible and safe recreational aviation medical certificate. These include the RAMPC, Basic Class 2 exemption and fitness assessments by Approved-Self Administering Organisations. Each of these have not been able to entirely deliver the desired outcomes, partly because they have not been supported by the comprehensive governance and implementation system that is provided with Part 67 medical certificates. As part of the reform of Part 67, a new "Class 4" self-declared aviation medical certificate is proposed to be formalised within the regulations, which will provide these extra layers of safety needed to support accessibility and flexibility.
3. The Aviation Medicine Technical Working Group has considered options based on broad industry consultation and expert advice and will continue to be involved in the development of Part 67. Earlier TWG discussions explored both Class 4 (SGP issued) and Class 5 (self-declared) options. The final recommendation was for a simpler approach using self-declared Class 4 within a strong framework of safety and quality assurance. The framework proposed by CASA AvMed to deliver this includes:
    a. development of a fit-for-purpose recreational aviation medical standard aligned with the private motor vehicle standards

b. comprehensive guidance materials for users of this standard for self-declaration

c. pathways for support of applicant decision-making by SGPs for more complex medical situations

d. focused training for SGPs with clear directions for application of the flexible recreational aviation medical standard, and

e. assurance of the safe and effective use of the Class 4 certification process through CASA audit, oversight and referral pathways.

4. CASA's approach will mean that the pilot's assessing SGP will be able to apply a more flexible standard and make this certificate accessible even to pilots with medical conditions of a type or severity that may be excluded by the jurisdictions listed above. The proposed pathway for the Class 4 medical certificate is outlined in **Attachment B**.

5. Operational considerations are critical to the safe implementation of the Class 4 license and medical certificate. Judicious use of operational restrictions will balance the increased acceptance of medical risk, to achieve an optimal outcome that permits the majority of recreational pilots to undertake the majority of recreational activities. The nature of the medical standard and the scope of permitted operations will be informed by a new Technical Working Group appointed by CASA's Aviation Safety Advisory Panel. TWG recommendations will be sought on elements including the risk thresholds for medical and operational restrictions, approach to self-assessed and medically reviewed aeromedical risk assessment and certification, and regulator audit/oversight functions.

6. Second-order benefits of the Class 4 model include the potential transfer of significant numbers of private pilots from Class 2 across to Class 4, opening capacity for CASA and authorised Designated Aviation Medical Examiners and non-CASA aerospace medicine specialists to issue and review Class 1, 2 and 3 certificates. CASA will also be ready for a likely move by ICAO towards a recreational aviation medical certificate.

7. Introduction of the Class 4 medical certificate with its supporting guidance materials will deliver an important outcome for the recreational aviation community. Delaying introduction until the making of the new Part 67, likely to be in 2024-2025, will not provide any additional benefit from a safety or legislative perspective, but will erode confidence and goodwill within the industry. It is therefore proposed that the Class 4 medical certificate standards, guidance materials and implementation package will be developed in early to mid-2023 with implementation by instrument in late 2023 before incorporation in the new Part 67 in subsequent years.

Recommendation:

It is recommended the ASC **approves** the development of the proposed Class 4 recreational medical certificate guidance materials and standards, to support implementation by instrument in 2023.

Proposed Resolution:

The ASC **approved** the development of the proposed Class 4 recreational aviation medical certificate and supporting governance systems and policies, for implementation by instrument in 2023.

Prepared by: Dr Kate Manderson, Principal Medical Officer

Approved by: Andreas Marcelja, EM SED

Date: 9 February 2023

Attachments:

A Class 4 Comparison Tables

B Class 4 Pathways to Certification

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Contents

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Overview

Part 67 of the *Civil Aviation Safety Regulations (CASR) 1998* sets out requirements relating to medical certification, designated to aviation medical examiners and designated aviation ophthalmologists.

Regulations relevant to medical certification includes appointment of examiners medical standards, issuing and renewing certificates and suspending and cancelling certificates This regulation affects:

- designated aviation medical examiners (DAMEs)
- designated aviation ophthalmologists (DAOs)
- pilots
- air traffic controllers

In 2018 CASA introduced a range of changes to the aviation medical certification system by a legislative instrument: These changes included creating a new category of private pilot medical certificate (Basic Class 2) which could be assessed by a general practitioner against the commercial driver standard, additionally enabling:

- a Class 2 medical for pilots operating commercial flights that do not carry passengers (up to a maximum take-off weight of 8618 kilograms)
- all DAMEs to have the option to issue Class 2 medical certificates on the spot, in most circumstances

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Introduction

This consultation was conducted between 2 May and 12 June 2022), with the aim of exploring measures to simplify and modernise CASA's overall approach to medical certification.

CASA used its online Consultation Hub to gather data on the following 6 broad focus areas:

1. review Part 67 to ensure it is up to date and fit for purpose
2. assess the implementation and outcomes of Basic Class 2 medical certification
3. review the effectiveness of CASA delegations to DAMEs and whether these could be extended or improved, or whether DAMEs can be given direct authority under the regulations to issue medical certificates
4. consider other areas of aviation activity where medical certification could improve safety outcomes
5. establish whether the current structure of medical certification for recreational aviation is fit for purpose
6. consider any other relevant medical matters

Additionally, feedback is also being sought on 3 key potential reforms that CASA are considering:

1. self-declared medical for private pilots
2. building the principles underlying the Basic Class 2 medical certificate into Part 67 and simplifying the medical certification structure
3. empowering DAMEs to do more by expanding delegations.

Most of the data collected via this consultation was qualitative feedback, with quantitative data limited to the provision of information about demographics and self-identified aviation roles. Respondents were given a text box with no restrictions to offer their opinions and suggestions. This provided an opportunity for respondents to elaborate on ideas. A Fact Bank was provided for each policy topic to highlight significant matters that should be considered prior to responses. Responses were then analysed in terms of common themes and issues for consideration.

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Respondents

CASA received 611 responses through the Consultation hub. Where consent to publish a response was provided, these have been published on the Consultation Hub.

68% of respondents consented to having their responses published and 32% requested their responses remain confidential but understood that de-identified aggregate data may be published. 2 respondents were CASA officers. Multiple selections were permitted (for example, a respondent might be both a DAME and a drone operator). Table 1 summarises the majority responses, and Figure 1 demonstrates the full range of responses.

The majority responses were in the following categories:	
Pilots	85%
Amateur/kit-built aircraft owners	25%
Sport aviation operators	18%
Selected one or more groups	11%
Organisations	10%
Identified as “other”	5%
DAME	2%
No category selected	3%

Table 1: Majority respondent categories

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Respondents who indicated that their role was that of an organisation, where multiple stakeholder views may be represented by one submission, number 60 or 10% of responses. The nature of the organisation (such as industry representative group, flying club, private company) was not identified.

The pilot population was not further analysed in terms of type of operations (Air Transport (ATO), Airwork (AWK) or General Aviation (GA)). The data was not further analysed in terms of which respondents were more likely to indicate a certain position on each theme; only the pooled data was reviewed for each theme and question.

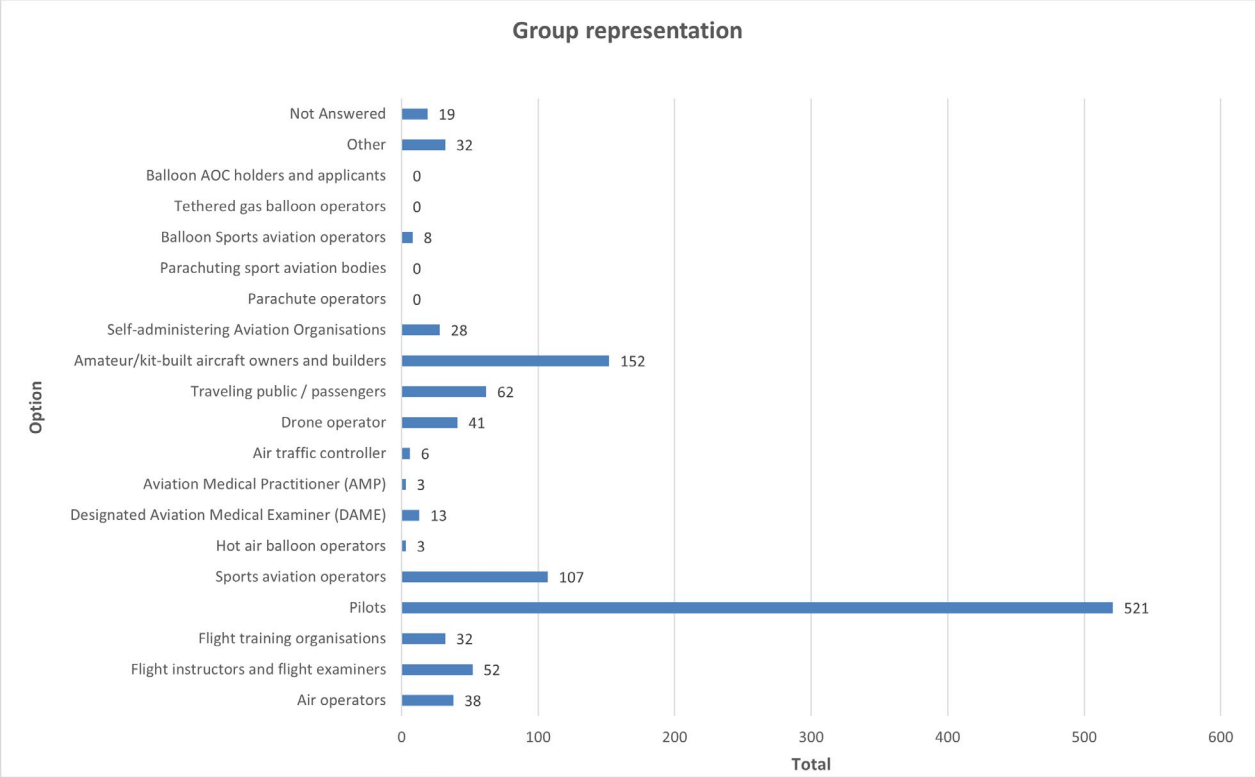

Figure 1: Consultation sector responses

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Summary of Responses

Across all topics and responses, the following themes were consistently reported. Many of these themes are interconnected, for example a medical certificate issued by a doctor outside CASA (process) that requires a more detailed medical examination and doctor training (standards) will increase the cost to the applicant of seeing that doctor (access).

Access – consideration of the financial, time and effort cost to applicants of undergoing the medical examination or assessment.

> *Decentralise as much as you can for all non-exceptional cases. Limit the exceptions to the real risk areas. Use GPs and other specialists as part of the decentralised model much more. They understand a patient's history far better than any other physician possibly can at a consultation every 2 years.*

Process – desire to reduce complexity and bureaucracy, to have a simplified process that still provides an assessment that is appropriate to the level of risk, and in general to reduce the involvement of CASA in direct decision-making.

> *I consider DAMEs, who are assessed by CASA to be suitable and are conversant with the CASA standards be judged competent to issue Class 2 medicals. At present there are too many levels of administration. Not allowing DAMEs to fully assess and where appropriate issue a Class 2 medical tends to show distrust of appointed DAMEs competence.*

Standards – what standard is being applied, at what level, for what kind of operations, by what medical examiner, with what level of oversight.

> *CASA should listen to the message from aviation industry organisations. Industry organisations all want the industry to prosper and have no interest in promoting safety standards that might undermine its future prosperity.*
>
> *From a safety management perspective, industry organisations strive for safety outcomes that are consistent with CASA's objectives.*

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Safety and risk – consideration of the need for checking compliance with the relevant standard through a process of quality assurance to ensure safety, balanced with the risk of the aviation activity.

> *A decentralised model that doesn't include overly complex audit, and quality assurance investment. Whilst the TWG considerations of guidance, training and resourcing are all valid, overcomplicating the system with the introduction of invasive audit/ assurance*

requirements will mean many DAMEs opt out of the scheme, negating any benefit of it. DAMEs still have a far greater understanding of complex case matters than CASA medical personnel; they are hands on with the patient, understand the history and are better placed to make assessments.

Evidence – experience of other jurisdictions, and the use of Australian and other data to inform decisions on individual certificate requirements and the certification system.

CASA's "additional guidance" is inappropriate. CASA should accept the approaches of other competent jurisdiction. One of the risks for CASA is that its AvMed staff may feel threatened by these changes.

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Key feedback

Theme 1 - Medical certification structure

Topic 1a: Assess the implementation and outcomes of Basic Class 2 certification and of other changes to the Class 2 certification process

Overview

In 2018 CASA introduced a Basic Class 2 medical certificate (BC2MC) . To enable this alternative medical certification pathway, an Exemption Instrument was provided EX69/21

Respondents were asked to consider how to incorporate the Exemption Instrument BC2MC principles into Part 67.

FACT BANK: Concept for simplified medical certification structure

A revision of the medical certification structure could present a logical sequence with decreasing levels of CASA involvement, offset by increasing conditions and restrictions:

- Class 1 (no change): examined by DAME, reviewed by CASA on Class 1 medical standard; possible renewal by DAME if non-complex
- Class 2 (no change to standards but streamlined processes): examined by DAME, reviewed by CASA only for cases of irreversible dementia, psychosis, or epilepsy or by DAME request, issued on Class 2 medical standard
- Class 3 (no change): examined by DAME, reviewed, and issued by CASA on Class 3 medical standard for Air Traffic Controllers
- Class 4 (replaces Basic Class 2): examined by DAME/or medical practitioner. Exploring whether this could be issued on unconditional Austroads commercial guideline (this is the same guideline as that applied to medicals for commercial truck drivers) or a new guideline developed by CASA (informed by approaches of other jurisdictions).
- Class 5 (new): self-declaration on Austroads private motor vehicle standard guideline issued by self-administering organisation or CASA

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Question 1 - What do you see as issues and risks for using the Austroads standard (with additional guidance for medical practitioners to help with interpretation and decision making)?

Response themes

65% of respondents advised that they felt there were no or minimal issues and risks in adopting the Austroads standards, and 25% indicated that they felt there were issues and risk. The common themes across this feedback included:

Costs: The cost to the applicant should be considered, as it may be increased.

Process: The time taken to have the medical completed may be reduced if it becomes a simplified and more streamlined process with less involvement of CASA.

Compliance: Pilots may not declare their medical conditions, and there may be more medical events in pilots under these standards.

Standards: Suitability of the Austroads standards for the aviation environment should be considered. Additional guidance may need to be provided for medical examiners and pilots as medical practitioner may not be familiar with the standards themselves and how to apply the standards for aviation.

Risk: There may be increased safety risk relating to issues around compliance and standards, however the experience of other jurisdictions indicates that risks to aviation safety may not be significant.

There are very limited risks or issues using Austroads as the basis for BASIC CLASS 2 type of licence. There sufficient protection in the UNMODIFIED Austroad examination

As long as it simplifies the current medical system then I see no problem

The GA sector has been calling for reforms to medicals for many years. I can only see upsides.

No issues really, there may be a small increased risk for underlying and undetected heart conditions. Maybe an ECG should be conducted just for the initial.

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Question 2 - What do you see as issues and risks if CASA was to develop a new guideline informed by the approaches of other jurisdictions?

Response themes

61% of respondents advised of no or low/minimal issues and risks, while 28% identified some issues and risks. The common themes across this feedback included:

Benefits: Using the experience and resources of larger populations and jurisdictions means CASA doesn't need to create our own version, as other jurisdictions' guidelines are already in use with no clear safety implications.

Issues: CASA may be overly conservative in developing the new guidelines. Introducing more guidelines may introduce complexity, confusion, and additional cost in choosing which standard applies to whom. Implementation would require the applicants and practitioners to understand the process for it to be effective.

That sounds like a sensible approach. The only comment I'd make is that Australian airspace is generally very much less crowded than in the UK (for example), and that needs to be taken into account. In particular

The risk is CASA will cherry pick the most restrictive components from other jurisdictions and amalgamate them into claimed 'world's best practice' as it has done with airspace, among others. Resist the desire to over-regulate and introduce a homogenous and practical evidence-based solution.

As long as it simplifies the current medical system then I see no problem

There is no risk, as demonstrated by both the US and UK examples.

The experience of the FAA, which oversees many more pilots than any other aviation regulator in the world, has not demonstrated any increased risk by adopting driver's licence-based standards for private pilot medicals. There are no other obvious risks in such an approach, and many benefits - reduction in CASA workload, reduced cost to pilots, revitalisation of the recreational aviation industry.

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Topic 1b: Austroads levels

Overview

The Australian Driver's License Standards have been published in the document "Assessing Fitness to Drive" (AFTD), produced jointly by the National Transport Commission and Austroads, as an element of the Safe System approach of the National Road Safety Strategy. The private and commercial medical standards in this document are used by medical practitioners in each State to recommend to the licensing authority whether the driver is fit to drive, including whether the medical practitioner or licensing authority might apply any conditions to the license (for example, need for extra or regular tests, yearly medical examination, or restriction on the type of vehicle or type of driving).

In general terms, the driver's license standard (both private and commercial) allows for drivers to continue to drive without restriction, even when they have some diseases or medical problems. This is the "unconditional driver's license".

With certain diseases, or higher severity of some diseases, the driver (both private and commercial) may be required to see a medical practitioner to review their medical fitness to drive every year and may have some other restrictions. Some restrictions are on the recommendation of the medical practitioner completing the driver's license medical assessment, and some are at the direction of the State driver's license authority. This is the "conditional driver's license".

The diseases, severity and restrictions that allow unconditional and conditional licenses are less restrictive for private drivers, and more restrictive for commercial drivers. Each State licensing authority also has some discretion as to what medical reviews and restrictions are required for private and commercial driving in their State.

The ability to include conditions on an aviation medical using driver's license standards is a subject for discussion. Currently CASA advises applicants, as the Basic Class 2 is fundamentally the *unconditional* Austroads standard, that if they do not pass the Basic Class 2 medical, or have a pre-existing medical condition, then they should approach their DAME for a full Class 2 assessment, as DAMEs have more flexibility to consider the specific circumstances in an aviation context and manage certain medical and or pre-existing medical conditions. The BC2MC as applied by CASA does not currently extend to this option to include conditions, hence a subject for discussion.

Question 3 - Considering the above which of the following options would work best?

1. A potential Class 4 certificate should bring the unconditional Commercial Austroads standard from Basic Class 2
2. There should there be flexibility to allow for a conditional issue against this standard by a GP
3. The Private Austroads standard should be considered for the Class 4 noting the unconditional application of the Commercial Austroads standard for Aviation use can be a stricter standard to meet when compared to the conditional application of a Class 2 Medical.
4. Other

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Response themes

In order of popularity, respondents selected:

Option 2: Flexibility to allow for a conditional issue against this standard by a GP (32% of respondents).

Option 4: Other (29%)

Option 3: Private Austroads standards should be considered for the Class 4, noting the unconditional application of the commercial Austroads standard for Aviation use can be a stricter standard to meet (18%)

Option 1: A potential Class 4 certificate should bring the unconditional commercial Austroads standard from Basic Class 2 (12%).

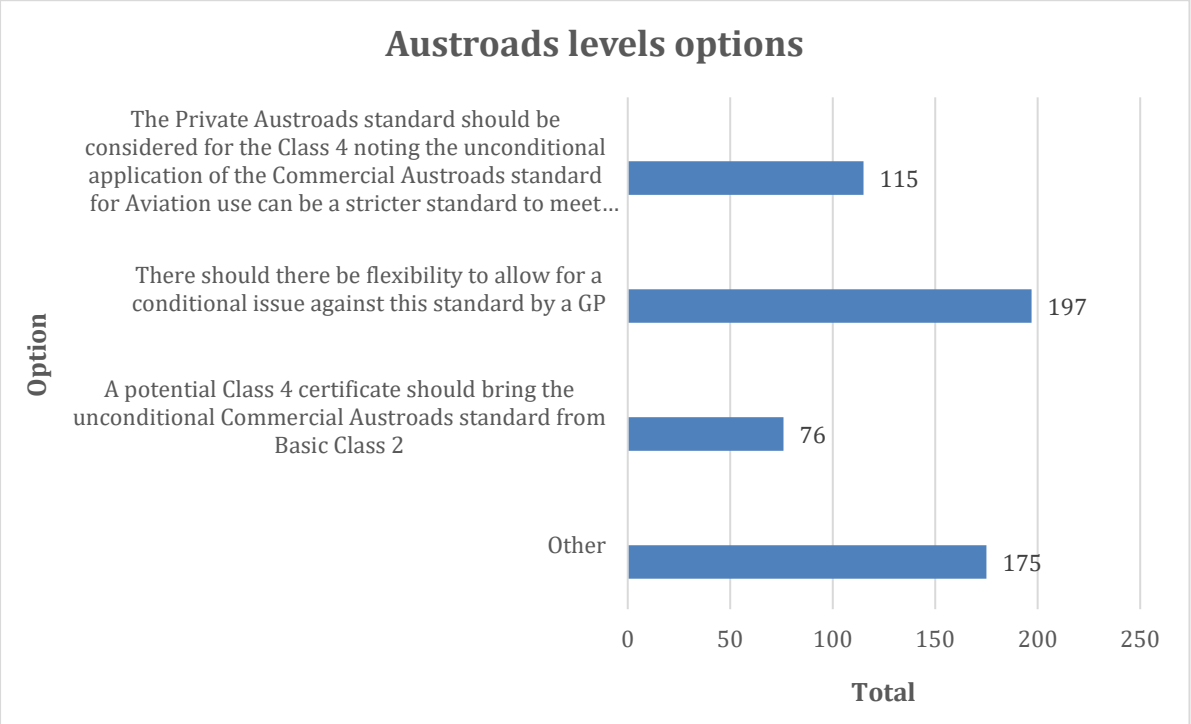

Figure 2: Austroads levels options

Commentary provided with these responses followed the following themes:

Operational restrictions: The nature of flying under the proposed certificate should be considered when choosing the medical standard (aerobatics, IFR, passengers, aircraft size and type)

Self-declared medicals: The use of the Austroads standard should be considered for a self-declared medical

Medical and examiner standards: The level of medical qualification required for certification should be matched with the level of the certificate and the standard being applied (Self, GP or DAME, ASAO, Class 1-5). The training and performance of the doctors

performing the assessments will need to be considered. The suitability of the standard being used should be considered, making sure it is appropriate to aviation.

Process: The approach to driver's license-based aviation medical certificates used in other jurisdictions should be considered. The process should be simplified, with less CASA involvement.

A potential Class 4 certificate should bring the unconditional Commercial Austroads standard from Basic Class 2

There should there be flexibility to allow for a conditional issue against this standard by a GP

The Private Austroads standard should be considered for the Class 4 noting the unconditional application of the Commercial Austroads standard for Aviation use can be a stricter standard to meet when compared to the conditional application of a Class 2 Medical.

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Theme 2 - Expanding DAME delegations

Topic 2 - Determine the effectiveness of CASA delegations to Designated Aviation Medical Examiners (DAMEs) and whether these could be extended or improved.

Overview

As part of the review, CASA is exploring whether to extend DAME delegations and what training DAMEs would be required should proceed. Early feedback on this highlights that further DAME discretion would increase their time and financial commitments. It has been suggested that a decentralised model would need to be collaborative between DAMEs and the CASA and suggests DAMEs should have the ability to opt in or out of issuing certificates.

Fact bank: Further information about the current DAME system

Part 67 enables CASA to appoint appropriately qualified persons as a DAME/ DAO (designated aviation ophthalmologist) or a Credentialed Optometrist. Currently a DAME may issue a Class 2 medical certificate to an applicant if the DAME holds a current instrument of delegation from CASA and complies with the conditions and limitations set out in the DAME Handbook. To undertake a Class 2 medical assessment the DAME must complete the Medical Assessment Report in CASA's Medical Record System (MRS) which identifies the conditions, their safety- relevance, and the certification decision.

If a DAME has any concerns about an applicant meeting the relevant medical standard, they must refer the matter to CASA for determination.

CASA considers that the DAME system has worked well, and the MRS system has improved both the effectiveness and timeliness of the issue of medical certificates.

Fact bank: Technical working group (TWG) considerations

- The TWG considered the proposal for an expansion of CASA delegations to DAMEs to further decentralise the current model.
- The TWG reviewed the proposal for DAMEs to issue Class 1 and Class 3 certificates without CASA being involved in the process unless required when being referred complex cases. The TWG added that issuing Cl 1 and Cl 2 medical certificates should be available for DAMEs that are interested and qualified, with oversight conducted by CASA. TWG also emphasised the importance of strong investment in training, audit, and quality assurance to allow for a more decentralised model.
- The TWG discussed challenges associated with delegation, including complex case management, the potential for inconsistency in decision making by delegated DAMEs, and financial considerations such as fair compensation for DAMEs conducting full examinations. The TWG acknowledged that inconsistency of outcomes will always be apparent, however noted that consistency in approach can be safeguarded with appropriate resources e.g., up to date current medical manual and training and Medical Records System (MRS) design as an additional safety measure (rules engines that recommends when CASA should be involved).
- The TWG discussed CAA NZ's decentralised model. It was suggested that a decentralised model would need to be collaborative between DAMEs and the CASA, particularly for complex case management. The TWG also discussed providing DAMEs with the flexibility to opt in or out of being delegated to make assessments to issue certificates. In general, the approach taken should be less CASA involvement in routine decision making and a supported DAME network who have the confidence and skills to issue routine medical certificates for a variety of low-risk medical conditions and by way of accredited medical conclusion and support for CASA complex medical cases where appropriate.
- The TWG emphasised the importance to ensure there is appropriate and sufficient guidance, training, and resources for any expansion of delegations to DAMEs. It was also noted that CASA will need to have sufficient resources for DAMEs to cater for the resultant increase in oversight and training requirements.

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Question 4 - What other things do you think we should explore to extend or improve DAME delegations

Response themes

28% of respondents did not make a comment, noted that they had nothing to add, or indicated that they were satisfied with the current DAME delegations.

Of the remaining 62% of respondents, common themes are listed below. Of note, 60% of comments (328 of the 551 who provided a response) indicated a desire for DAMEs to have expanded authority and responsibility for issuing medical certificates.

Expansion of DAME delegations: DAMEs should be empowered in decision-making and issuing certificates, with responses ranging from full authority to issue in all cases to DAMEs having limited authority to issue based on the medical situation.

> *Absolutely give DAMES the authority to issue a medical! Casa should be issuing to all dames the requirements and that's it. Cost effective and efficient.*
>
> *Allowing initial issues of medicals*

Variation of DAME authority: matching the authority of the DAME to issue the certificate, and the involvement of CASA, with the Class of the medical certificate.

> *I do like the idea of DAME's been able to issue class 1 medical certificates as they physically see the applicant and generally also know the applicant where as CASA reviews the application but doesn't see the applicant.*

GPs and treating doctors: The responses ranged from allowing non-aviation treating doctors (GPs and other Specialists) to make the decision about medical certification without involving DAMEs or CASA, to allowing DAMEs to make final decisions based on GP and other Specialist advice.

> *If a Pilot is using his own GP then that GP Knows his History.*
> *A Pilot should not go to a New GP that has no knowledge of Past issues, So The GP should have to state that he has been Treating the Pilot for some time.*
> *Knows His History. When We go to a DAME they Do not know our History, only what we tell them.*
>
> *My GP has been looking after my health he knows all about my health and his opinions should be enough to issue a PPL medical*
>
> *DAME don't do anything but administration for CASA a normal GP could do the same and at least your GP knows the pilot/patient*

CASA's involvement: Responses included avoidance of CASA's involvement in medical certification altogether; only referring complex cases to CASA for decisions; or CASA's involvement being limited to quality assurance.

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Simplify the whole process. I have had several DAMEs I know of state the additional bureaucracy required in dealing with CASA at all makes it difficult to justify them remaining DAMEs and the degree of oversight of CASA on the DAMEs when the DAMEs are the experts on the medical issues involved makes the whole process unnecessarily difficult, costly, and time consuming and moreover, does not add value at all.

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Theme 3 - Self-declared medical for private pilots

Topic 3 - Review other areas of aviation activity where medical certification could improve safety outcomes

Overview

CASA is considering a self-declared driver's licence medical certificate for recreational pilots to be regarded as a Class 5 medical certificate under the revised certification structure outlined in Topic 2.

A self-declared medical would provide an alternative and easier pathway than the current Basic Class 2. It would encourage greater participation across the industry and is an initiative in our GA workplan to encourage growth of the sector.

Fact bank: Technical working group (TWG) considerations

- The TWG discussed how a Class 5 self-declared medical certification would be administered and whether it would place additional (and replicated) requirements for aviation self-administering organisations (ASAOs) that operate under CASR Part 149, such as RAAOs.
- The concept discussed was for CASA to set guidance for a self-declared medical certificate which is governed under CASR Part 67 and would allow certain organisations to continue to manage their own medical certification processes. In this instance, CASA's role would be to approve the processes and audit the organisation.
- Discussions also covered concepts for how ASAOs would continue to manage their assessments of self-declared medicals via their operations manuals through Part 149. The audit, compliance, and oversight role of CASA for Part 149 organisations includes all elements of the ASAO's operations, which extends to the processes used by the ASAO for medical assessments and standards. CASA Avmed would work with the ASAOs to support their medical assessment processes to be safely and effectively managed under part 149, and for ASAOs would continue to be independent from the medical certification requirements for Part 67.
- The TWG considered introducing a Class 5 self-declared medical for VH-registered aircraft. The TWG discussed that the certification may be based on the Austroads private motor vehicle driving guidance. It was also noted that if the individual did not meet certain criteria, they would need a doctor to assess and issue the certificate and that CASA would need to provide guidance to support. CASA would also have an oversight and audit capability.

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Question 5 - What do you consider to be the benefits of the Class 5 medical certificate concept?

Response themes

8% of respondents advised that they felt there were no benefits, and 85% of respondents identified benefits. The major theme for Question 5 responses was around improved and expanded access and availability: Class 5 would allow increased access to medical certificates for pilots based on reduced financial cost of the medical assessment; the Class 5 would be of reduced complexity and allow faster issuance of certificates. The self-declared Class 5 would be a more flexible standard, which would mean more people could have a medical certificate.

Less red tape. Less stress on pilots. Will assist in reinvigorating GA.

The Class 5 medical would have to have limitations on flight abilities for the license holder like the Basic Class 2 and as its naming suggests being a lower class than the Class 4

medical. For flight training this could be very beneficial to get people into the industry and to give them a taste of flight training before committing hundreds to complete a Class 1 or 2 medical. However strong auditing will be required. I also suggest having this done by a web form, probably MRS, for people to submit their medical information for casa to easily audit. It can also be cross checked against other discrepancies in an automated function

This change would free us from the oppressive and invasive decisions frequently made by Avmed, which have driven so many competent pilots out of the industry. It would put an end to the stressful and expensive unnecessary tests that Avmed arbitrarily require, against the advice of specialist medical practitioners.

This change would free up Avmed resources to work on things that matter more - commercial operations.

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Question 6 - What do you consider to be issue and risks regarding the Class 5 medical certificate concept?

Response themes

54% of respondents advised no or low/minimal issues and risks, 36% of respondents identified issues and risks, with the remainder providing no response or indicating that they had no opinion.

Common themes included:

Safety: A self-declared Class 5 certificate may increase risk through non-compliance with self-declaration, where pilots with significant medical issues may not declare them. There may be increased risk due to permitting more pilots with complex medical conditions to fly.

Standards: There may be increased complexity or potential confusion over which standard applies to which pilot. A process for oversight should be considered to ensure standards are being applied correctly.

Operational considerations: A self-declared Class 5 certificate should consider the nature of the flying operations (aircraft type and registration, airspace, size, number of passengers, licence endorsements).

Access: Issues around levels of bureaucracy and administrative burden for pilots and organisations of administering a Class 5 self-declared model should be considered.

There is risk no matter what but let us de regulate as other countries have done. This will allow the dying GA and Rec to grow.

CASA will find it hard to relinquish control and I believe that any potential issues will be raised as complex cases and end up being a more involved, complex outcome for the individual

The road traffic data suggests very few incapacitations' episodes

No additional risks.

The RAA has shown this to work, and there is no reason that a private pilot flying a VH registered aircraft should have to have any higher standard than a pilot flying an RAA Registered aircraft.

In fact, there is no reason why he/she should have any higher standard than a car driver - who is likely to cause far more damage if he takes ill at the wheel of his/her car."

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Theme 4 - Standards for drone pilots

Topic 4 - There are no current Australian medical standards in respect of remotely piloted aircraft operations. This is an area for future policy consideration, and we would like your ideas early.

Fact bank: Technical working group (TWG) considerations

- The TWG discussed the considerations associated with remotely piloted aircraft (RPA) operations. It was raised that the weight of the RPA and the type of operation being conducted may be appropriate parameters to consider whether medical certification would be relevant – such as through a matrix.
- The TWG considered the concept of a Class 3R medical certificate for higher risk operations, and no medical certification for lower risk operations (as opposed to staggered certification based on operational risk).
- The TWG discussed the levels of redundancy and on-board capability of RPAs in the context of loss of control or possible medical episodes causing a flyaway drone. It was noted that type certified RPAs have requirements for specific on-board capabilities, and that similar capabilities are generally found (but not required) for RPAs weighing 25kg and over.
- The TWG discussed the need for further information, such as the rate of failure for RPAs and further consideration of the risk level in the context of RPAs weight (e.g. 25kg vs 150kg).

Question 7 - Do you think there are any aviation medical considerations that should be considered for pilots of remotely piloted aircraft systems (e.g. drone size, category, type, distance flown, type of operation)?

Response themes

21% of respondents said there should be no aviation medical considerations for pilots of remotely piloted aircraft systems, while 58% of respondents agreed there should be considerations for pilots of remotely piloted aircraft systems. The remainder either provided no response or indicated that this did not have a position on this question.

The responses were around two major themes, related to the medical standards, the nature of operations, and how these should be matched in considering a drone operator medical standard. Higher risk operations (commercial, controlled air space, passenger carriage, larger drones, higher altitude, outside line-of-sight) should be considered for a medical standard, while lower risk operations may have a lower medical standard or no medical standard. Respondents also indicated that CASA should consider the approach of other jurisdictions.

Drones that pose a significant safety risk because of size or area of operation etc should be operated by persons that meet a minimum health standard
Perhaps basic class 2

Given the automation and intelligence of modern drones, I'm not sure the health of the operator plays any real part

No, most heavy drones have multiple levels of redundancy that reduce risk in any event of operator incapacitation. CASA does not need to be involved in any way.

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Theme 5 - Flight instructors in sport and recreation

Topic 5 - Establish whether the current structure of medical certification for recreational aviation is fit for purpose

Overview

Given the importance of flight instructing as a keystone of aviation safety, it is appropriate to explore whether the general practitioner endorsement of the medical status of an instructor in the sport and recreational sector is a sufficient level of medical clearance.

Fact bank: Current medical requirements for flight instructors

Under the flight crew licensing rules (Part 61 of CASR) a flight instructor involved in flying training must hold a private, commercial or air transport pilot licence, and the relevant medical certification to enable the exercise of the privileges of their licence. An instructor in the sport and recreational aviation sector is required to hold a higher medical standard than that of recreational pilots. For example, Recreational Aviation required minimum for an instructor is a CASA Class 2 Aviation Medical Certificate or higher, or RAAus Medical Questionnaire and Examination form completed by the candidate's General Practitioner. The Gliding Federation of Australia also requires instructors to maintain their Medical Practitioner's Certificate of Fitness.

As with other forms of aviation, instructor incapacity contributing to incidents and accidents in the sport and recreational aviation sector is rare. However, given the importance of instructing as a keystone of aviation safety, it is appropriate to ask as part of a review of Part 67 whether the general practitioner endorsement of the medical status of an instructor in the sport and recreational sector is a sufficient level of medical clearance.

For example, Transport Canada's category 4 medical certificate which is primarily for recreational, ultralight and glider pilots, requires glider and ultralight Instructors to provide a medical report within five years of issue or revalidation regardless of age, and for those over 40 need an ECG at first examination and every five years thereafter. However, pilot incapacitation remains an uncommon event and while instructor incapacitation does happen (as was the case at Jandakot in August 2019 where the student pilot needed to land the aircraft after the instructor became unconscious) such an occurrence is even rarer

Fact bank: Technical working group (TWG) considerations

The TWG questioned whether a higher medical standard for instructors would provide extra safety outcomes.

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Question 8 - Should a higher level of medical certification (e.g. a CASA Class 2 medical certificate) be required for flight instructors in the sport and recreational sector?

Response themes

Where a response was provided (from 86% of respondents), slightly more indicated a desire for a higher medical certificate for sport and recreational examiners than those who felt the medical standard should not be different to for the instructor and the student – 47% for a higher standard compared with 39% for the same standard. Common themes in these responses included:

Evidence: The decision on whether a higher medical standard is required for instructor compared to student should be based on data around medical incapacitation of instructors. The experience and approach of other jurisdictions should be considered.

Access: The impact on availability of instructors if higher medical standards are required should be considered.

Risk: The instructor medical standard should be matched to the level of risk and the nature of instruction (considering experience, flight profile, aircraft factors). This should inform what medical standard should be applied (such as self-declared, Austroads, or Part 67).

Yes. Considering that they are taking a paid student onboard and are entrusted with their safety, it is only reasonable that these instructors hold a higher standard of medical, as opposed to just self-certifying. They need to be fit and healthy enough to prevent a student having an accident and to take control in the event of an emergency. Considering the low hours many recreational pilots may have and the nature of low inertia high drag aircraft, it is only reasonable that instructors in recreational aviation are held to a higher standard.
yes, the demands and stresses associated are higher than a typical recreational or private operation and therefore the risk is higher. I do however believe the current class 2 would be more than enough to satisfy the risks
All flight instructors should hold a class one medical based on the increased risk when flying student pilots.

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Theme 6 - Modernising the rules

Topic 6 - Examine the Part 67 regulation to ensure it is up to date and fit for purpose

Overview

The Part 67 rules contain significant amounts of outdated material and information that, if it were being drafted now, would properly belong in a Manual of Standards (MOS) and advisory documents, rather than in the regulation itself.

Placing certain provisions in guidance material e.g. DAME Medical Manual will make it easier to change and update than having it in regulations. This will allow us to keep pace with advances in medical practice and the evolution of aviation medical regulation.

We understand that regulations can be difficult to read, so we plan to make it easier for you in the future by publishing a Plain English Guide to Part 67. It will set out the regulatory requirements in a concise, clear easy to read and practical format. It would mainly be for those who require medical certification (pilots and air traffic controllers) with some basic information for aviation medicine providers.

The type of information we would expect to include in a MOS would be the technical and operational detail governing the application of the regulations for:

- AMP training courses
- Appointment of Aviation Medical Practitioners (AMPs) (see note below)
- AMP currency and performance management
- Classes of medical certificates
- Medical standards for certificate classes
- Supporting processes to issue, renew, restrict, suspend, and cancel medical certificates
- Supporting processes for assurance of quality and safety in aeromedical certification
- Any other processes to support Avmed in providing safe and effective medical certification and aeromedical safety systems.

Note: Definition of AMPs - Aviation Medical Practitioner, being any medical practitioner involved in decision-making for aviation medical certification including DAMEs, treating doctors and GPs

Fact bank: Technical working group (TWG) considerations

- The other matters discussed at the TWG revolved around what could potentially be included in a MOS e.g. standards for testing vision or conducting a stress echocardiogram etc and what is outside MOS and can be more regularly updated to be current e.g. DAME Medical Manual.
- The TWG also discussed some of the other work and engagement conducted by CASA Aviation Medicine, such as holding clinical case conferences to strengthen engagement and transparency in medical decision-making. Avmed will also be conducting regional engagement and have regular slots at FlySafe events around the country.
- The TWG discussed the benefits in having the Principal Medical Officer (PMO) conducting regular engagement with aviation associations, organisations, and pilot groups.

Question 9 - Are there any other things we should consider making sure Part 67 is up to date and fit for purpose?

Response themes

57% of respondents provided considerations/comment, 30% of respondents said there were no additional considerations or no opinion/comment, and the remainder did not provide a response to this question.

Common themes across the feedback included:

Evidence and standards: Refer to the experience and approach of other jurisdictions, including consultation and feedback. Need for risk-informed and evidence-based approach to medical standards, with guidance and manuals that are in line with current best medical practice

Access and process: Consideration of complexity, time and cost around the examination and certification processes. Need for clarity on decision authority including role of CASA, DAME, GP and treating specialist

CASA AMED should take more notice of specialist reports and learn to trust the medical profession at large.

Most of it is outdated...medicine has a come a long way since those rules were made. The rules need to be updated to a modern era. Like a lot of aircraft that are dinosaur technology the aviation rules need to come into today's conditions and expectations

No. CASA's ongoing initiative to deregulate what has become an overregulated General Aviation Industry has wide support. If CASA's model is to follow the US FAA regulations, then the sooner we remove the legacy DCA/DOT/British and EAA regulations that are overlaid on the US FAA regulations to create a hybrid and overregulated Australian model the better. This applies for all Parts to the Act not just Part 67.

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Theme 7 - Final feedback

Topic 7 - Consider any other relevant matters

Overview

Our review of the aviation medical rules aims to simplify and modernise our overall approach to medical certification.

Response themes

Question 10 - In addition to the information you have already provided, do you have any final suggestions to help shape our review of aviation medical policy?

77% of respondents provided final suggestions. Common themes included:

Evidence and standards: Reference should be made to other jurisdictions' certification systems. Importance of ensuring risk and evidence are considered in decision-making, which supports the matching of medical standards with the nature and risk of the operations.

> *Make it simpler and follow other countries guides. Self-testing or basic medical car license is my view. The current system is killing the GA market not to mention the over regulation taking up people's valuable time that can be used elsewhere*
>
> *Medicals are our Achilles heel as pilots…the parameters are set way too high for the average person, we don't need to be athletes to pilot an aircraft. Most of us continue the life principles of healthy body healthy mind. As for being cost effective and efficient, allow dames to issue class 1 & 2 medicals on the spot. If not, how about help us pilots out and decrease the bloody costs of all this significantly! As you know the average wage of pilots is terrible and casa wants us scrutinised 10 fold.no wonder we lose good pilots daily. Instructors specifically are paid minimum wages which do not correspond to the risks involved when training students. This needs to change.*
>
> *I'm glad CASA are looking into this. It looks as though you are looking at other countries models and engaging the community so, it can only be a good result you come up with.*

Access and process: Support for simplification and introduction of GP and self-declared certificate options, alongside clarity and simplification of the CASA decision and certification system. The importance of considering access and cost to the certificate-holder.

> *Remove Avmed from the policy review and see what you get. Let DAMES who examine real people make real decisions.*
>
> *Yes, as best we can keep CASA out of the issuing of medicals unless it is deemed necessary by a DAME medical professional.*
>
> *Costs need to be brought down. You're charging us $75 for a handling fee!?*

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Future direction

The feedback from the consultation will be considered by the TWG and used to inform recommendations to the ASAP. This will occur in September and October 2022.

Subject to ASAP advise, CASA will subsequently reengage with the TWG to develop resulting draft policy positions in late 2022 and early 2023. Those draft policy positions will then undergo further public consultation expected in the first half of 2023.

* *Italic comments represent quotes where CASA has been granted permission to publish..*

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Overview

Part 67 of the *Civil Aviation Safety Regulations (CASR) 1998* sets out requirements relating to medical certification, designated to aviation medical examiners and designated aviation ophthalmologists.

Regulations relevant to medical certification includes appointment of examiners medical standards, issuing and renewing certificates and suspending and cancelling certificates This regulation affects:

- designated aviation medical examiners (DAMEs)
- designated aviation ophthalmologists (DAOs)
- pilots
- air traffic controllers

In December 2016, CASA published a discussion paper exploring various policy issues. An independent report on the submissions was also submitted to CASA and released publicly.

A three-phased approach to reform CASA's approach to aviation medicine was proposed and approved in 2017. This included:

Phase 1: Implementation of immediate measures to address some of the key issues identified in the responses
Phase 2: Redesign the Class 2 medical certification system (creation of a Basic Class 2 Medical Certificate)
Phase 3: Advanced measures to ensure the entire medical certification scheme remains contemporary.

In 2018 (**Phase 2**) CASA introduced a range of changes to the aviation medical certification system by instrument: These changes included creating a new category of private pilot medical certificate (Basic Class 2) which could be assessed by any medical practitioner against the commercial driver standard, additionally allowing:

- a Class 2 medical for pilots operating commercial flights that do not carry passengers (up to a maximum take-off weight of 8618 kilograms)
- all DAMEs to have the option to issue Class 2 medical certificates on the spot, in most circumstances

This consultation addresses **Phase 3**.

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Introduction

This consultation was conducted between 2 May and 12 June 2022 relating to the published Aviation Medical Policy Review (DP 2206FS), with the aim to simplify and modernise CASA's overall approach to medical certification.

CASA used its online Consultation Hub to gather data on the following 6 broad focus areas:

1. examine Part 67 to ensure it is up to date and fit for purpose
2. assess the implementation and outcomes of Basic Class 2 certification
3. determine the effectiveness of CASA delegations to DAMEs and whether these could be extended or improved, or whether DAMEs can be given direct authority under the regulations to issue medical certificates
4. consider other areas of aviation activity where medical certification could improve safety outcomes
5. establish whether the current structure of medical certification for recreational aviation is fit for purpose
6. consider any other relevant matters

Additionally, there are also 3 key potential reforms that CASA are considering:

1. self-declared medical for private pilots
2. building the principles underlying the Basic Class 2 medical certificate into Part 67 and simplifying the medical certification structure
3. empowering DAMEs to do more by expanding delegations.

Most of the data collected via this consultation was qualitative feedback, with quantitative data limited to the provision of information about demographics and self-identified aviation roles. Respondents were given a text box with no restrictions to offer their opinions and suggestions. This provided an opportunity for respondents to elaborate on ideas. A Fact Bank was provided for each policy topic to highlight significant matters that should be considered prior to responses. Responses were then analysed in terms of common themes and issues for consideration.

This consultation is relevant to all pilots (including drone flyers), medical professionals and air traffic controllers.

This is a key initiative from CASAs general aviation workplan.

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Respondents

CASA received 611 responses through the Consultation hub.

68% of respondents consented to having their responses published and 32% requested their responses remain confidential but understood that de-identified aggregate data may be published. 2 respondents were CASA officers. Multiple selections were permitted (for example, a respondent might be both a DAME and a drone operator). Table 1 summarises the majority responses, and Figure 1 demonstrates the full range of responses.

The majority responses were in the following categories:	
Pilots	85%
Amateur/kit-built aircraft owners	25%
Sport aviation operators	18%
Selected one or more groups	11%
Organisations	10%
Identified as “other”	5%
DAME	2%
No category selected	3%

Table 1: Majority respondent categories

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Respondents who indicated that their role was that of an organisation, where multiple stakeholder views may be represented by one submission, number 60 or 10% of responses. The nature of the organisation (such as industry representative group, flying club, private company) was not identified.

The pilot population was not further analysed in terms of type of operations (private, commercial, recreational). The data was not further analsyed in terms of which respondents were more likely to indicate a certain position on each theme; only the pooled data was reviewed for each theme and question.

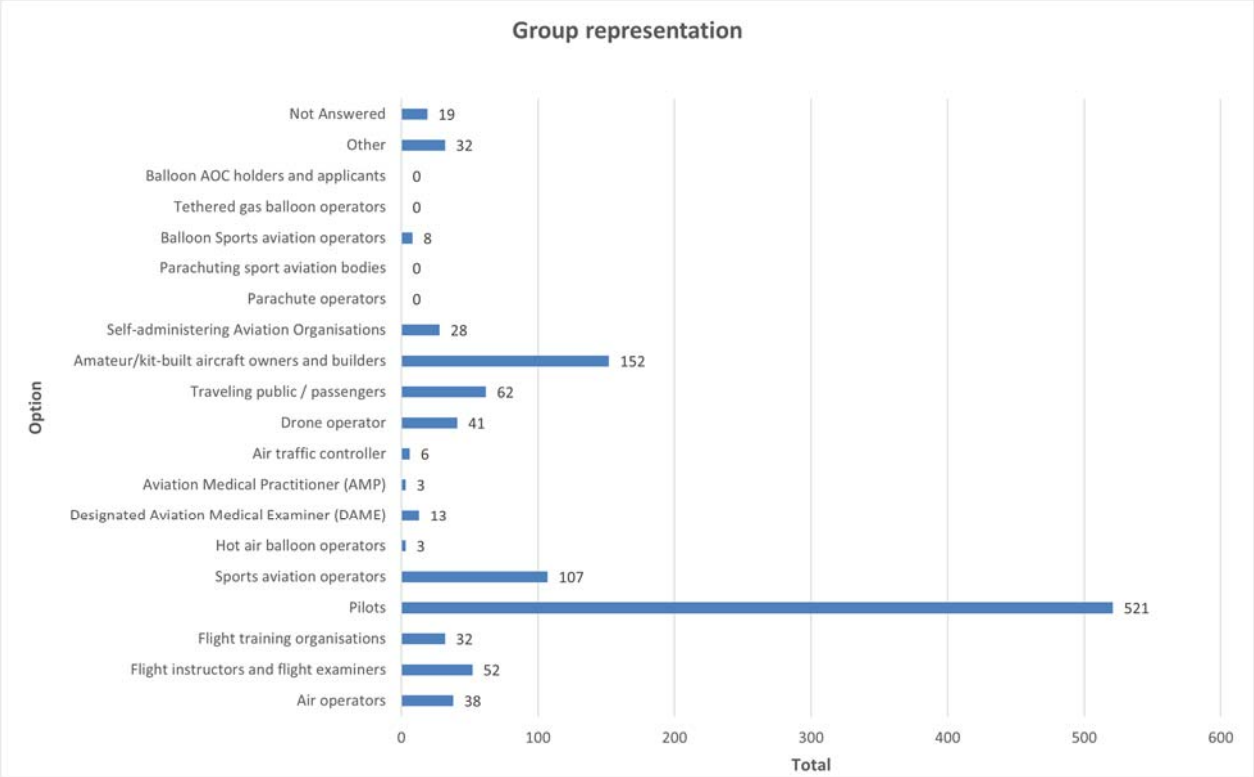

Figure 1: Group representation statistical data

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Summary of Responses

Across all topics and responses, the following themes were consistently reported. Many of these themes are interconnected, for example a medical certificate issued by a doctor outside CASA (process) that requires a more detailed medical examination and doctor training (standards) will increase the cost to the applicant of seeing that doctor (access).

Access – consideration of the financial, time and effort cost to applicants of undergoing the medical examination or assessment.

Insert relevant comment

Process – desire to reduce complexity and bureaucracy, to have a simplified process that still provides an assessment that is appropriate to the level of risk, and in general to reduce the involvement of CASA in direct decision-making.

Insert relevant comment

Standards – what standard is being applied, at what level, for what kind of operations, by what medical examiner, with what level of oversight.

Insert relevant comment

Safety and risk – consideration of the need for checking compliance with the relevant standard through a process of quality assurance to ensure safety, balanced with the risk of the aviation activity.

Insert relevant comment

Evidence – experience of other jurisdictions, and the use of Australian and other data to inform decisions on individual certificate requirements and the certification system.

Insert relevant comment

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Key feedback

Theme 1 - Medical certification structure

Topic 1a: Assess the implementation and outcomes of Basic Class 2 certification and of other changes to the Class 2 certification process

Overview

In 2018 we introduced a Basic Class 2 medical certificate. To enable this alternative medical certification pathway quickly and easily, we made an exemption to the rules.

Respondents were asked to consider how this review provides an opportunity to put all the rules in one place and build the Basic Class 2 principles into Part 67.

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FACT BANK: Concept for simplified medical certification structure

A revision of the medical certification structure could present a logical sequence with decreasing levels of CASA involvement, offset by increasing conditions and restrictions:

- Class 1 (no change): examined by DAME, reviewed by CASA on Class 1 medical standard; possible renewal by DAME if non-complex
- Class 2 (no change to standards but streamlined processes): examined by DAME, reviewed by CASA only for cases of irreversible dementia, psychosis, or epilepsy or by DAME request, issued on Class 2 medical standard
- Class 3 (no change): examined by DAME, reviewed, and issued by CASA on Class 3 medical standard for Air Traffic Controllers
- Class 4 (replaces Basic Class 2): examined by DAME/or medical practitioner. Exploring whether this could be issued on unconditional Austroads commercial guideline (this is the same guideline as that applied to medicals for commercial truck drivers) or a new guideline developed by CASA (informed by approaches of other jurisdictions).
- Class 5 (new): self-declaration on Austroads private motor vehicle standard guideline issued by self-administering organisation or CASA

Question 1 - What do you see as issues and risks for using the Austroads standard (with additional guidance for medical practitioners to help with interpretation and decision making)?

Response themes

65% of respondents advised that they felt there were no or minimal issues and risks in adopting the Austroads standards, and 25% indicated that they felt there were issues and risk. The common themes across this feedback included:

Costs: The cost to the applicant should be considered, as it may be increased.

Process: The time taken to have the medical completed may be reduced if it becomes a simplified and more streamlined process with less involvement of CASA.

Compliance: Pilots may not declare their medical conditions, and there may be more medical events in pilots under these standards.

Standards: Suitability of the Austroads standards for the aviation environment should be considered. Additional guidance may need to be provided for medical examiners and pilots as medical practitioner may not be familiar with the standards themselves and how to apply the standards for aviation.

Risk: There may be increased safety risk relating to issues around compliance and standards, however the experience of other jurisdictions indicates that risks to aviation safety may not be significant.

Insert relevant comment(s)

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Question 2 - What do you see as issues and risks if CASA was to develop a new guideline informed by the approaches of other jurisdictions?

Response themes

61% of respondents advised of no or low/minimal issues and risks, while 28% identified some issues and risks. The common themes across this feedback included:

Benefits: Using the experience and resources of larger populations and jurisdictions means CASA doesn't need to create our own version, as other jurisdictions' guidelines are already in use with no clear safety implications.

Issues: CASA may be overly conservative in developing the new guidelines. Introducing more guidelines may introduce complexity, confusion and additional cost in choosing which standard applies to whom. Implementation would require the applicants and practitioners to understand the process for it to be effective.

Insert relevant comment(s)

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Topic 1b: Austroads levels

Overview

The Australian Drivers License Standards have been published in the document "Assessing Fitness to Drive" (AFTD), produced jointly by the National Transport Commission and Austroads, as an element of the Safe System approach of the National Road Safety Strategy. The private and commercial medical standards in this document are used by medical practitioners in each State to recommend to the licensing authority whether the driver is fit to drive, including whether the medical practitioner or licensing authority might apply any conditions to the license (for example, need for extra or regular tests, yearly medical examination, or restriction on the type of vehicle or type of driving).

In general terms, the drivers license standard (both private and commercial) allows for drivers to continue to drive without restriction, even when they have some diseases or medical problems. This is the "unconditional drivers license".

With certain diseases, or higher severity of some diseases, the driver (both private and commercial) may be required to see a medical practitioner to review their medical fitness to drive every year and may have some other restrictions. Some restrictions are on the recommendation of the medical practitioner completing the drivers license medical assessment, and some are at the direction of the State drivers license authority. This is the "conditional drivers license".

The diseases, severity and restrictions that allow unconditional and conditional licenses are less restrictive for private drivers, and more restrictive for commercial drivers. Each State licensing authority also has some discretion as to what medical reviews and restrictions are required for private and commercial driving in their State.

The ability to include conditions on an aviation medical using drivers license standards is a subject for discussion. Currently CASA advises applicants, as the Basic Class 2 is fundamentally the *unconditional* Austroads standard, that if they do not pass the Basic Class 2 medical, or have a pre-existing medical condition, then they should approach their DAME for a full Class 2 assessment, as DAMEs have more flexibility to consider the specific circumstances in an aviation context.

Question 3 - Considering the above which of the following options would work best?

1. A potential Class 4 certificate should bring the unconditional Commercial Austroads standard from Basic Class 2
2. There should there be flexibility to allow for a conditional issue against this standard by a GP
3. The Private Austroads standard should be considered for the Class 4 noting the unconditional application of the Commercial Austroads standard for Aviation use can be a stricter standard to meet when compared to the conditional application of a Class 2 Medical.
4. Other

Response themes

In order of popularity, respondents selected:

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Option 2: Flexibility to allow for a conditional issue against this standard by a GP (32% of respondents).

Option 4: Other (29%)

Option 3: Private Austroads standards should be considered for the Class 4, noting the unconditional application of the commercial Austroads standard for Aviation use can be a stricter standard to meet (18%)

Option 1: A potential Class 4 certificate should bring the unconditional commercial Austroads standard from Basic Class 2 (12%).

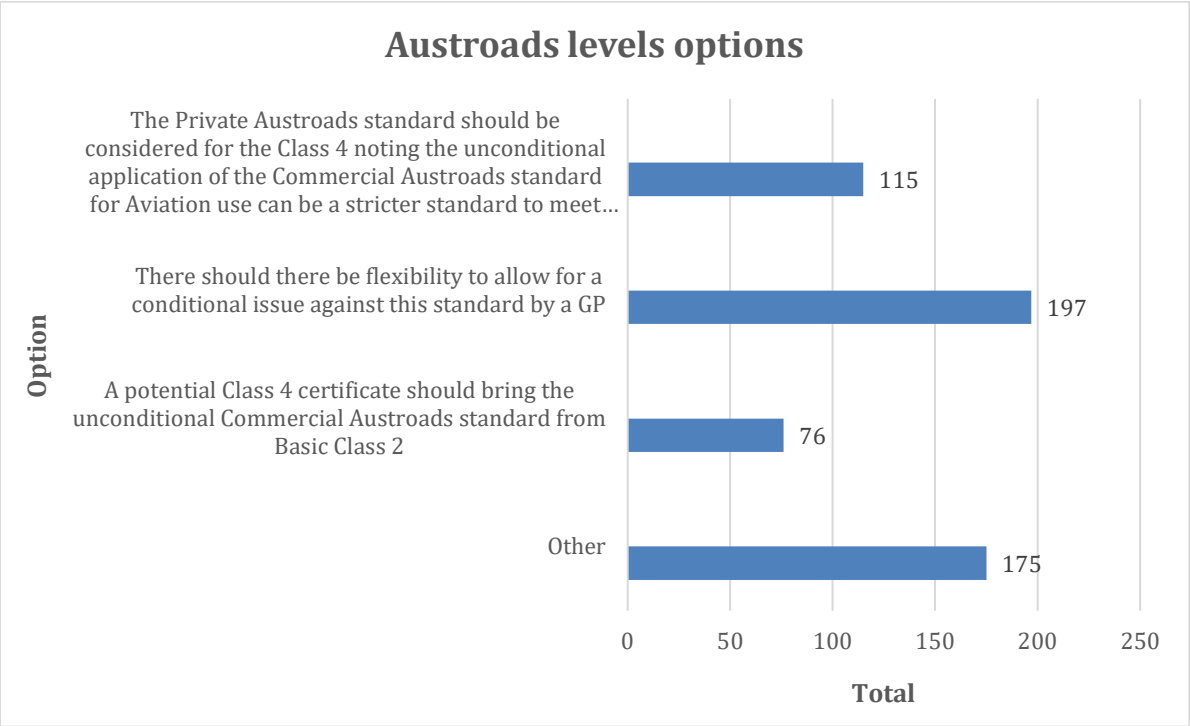

Figure 2: Austroads levels options

Commentary provided with these responses followed the following themes:

Operational restrictions: The nature of flying under the proposed certificate should be considered when choosing the medical standard (aerobatics, IFR, passengers, aircraft size and type)

Self-declared medicals: The use of the Austroads standard should be considered for a self-declared medical

Medical and examiner standards: The level of medical qualification required for certification should be matched with the level of the certificate and the standard being applied (Self, GP or DAME, ASAO, Class 1-5). The training and performance of the doctors performing the assessments will need to be considered. The suitability of the standard being used should be considered, making sure it is appropriate to aviation.

Process: The approach to drivers license-based aviation medical certificates used in other jurisdictions should be considered. The process should be simplified, with less CASA involvement.

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Insert relevant comment(s)

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Theme 2 - Expanding DAME delegations

Topic 2 - Determine the effectiveness of CASA delegations to Designated Aviation Medical Examiners (DAMEs) and whether these could be extended or improved.

Overview

As part of the review, we are exploring whether to extend the DAME delegation further and what training of DAMEs would be required should this happen. Early feedback on this highlights that further DAME discretion would increase their time and financial commitments. It has been suggested that a decentralised model would need to be collaborative between DAMEs and the CASA and suggests DAMEs should have the ability to opt in or out of issuing certificates.

Fact bank: Further information about the current DAME system

Part 67 enables CASA to appoint appropriately qualified persons as a DAME/ DAO (designated aviation ophthalmologist) or a Credentialed Optometrist. Currently a DAME may issue a Class 2 medical certificate to an applicant if the DAME holds a current instrument of delegation from CASA and complies with the conditions and limitations set out in the DAME Handbook. To undertake a Class 2 medical assessment the DAME must complete the Medical Assessment Report in CASA's Medical Record System (MRS) which identifies the conditions, their safety- relevance, and the certification decision.

If a DAME has any concerns about an applicant meeting the relevant medical standard, they must refer the matter to CASA for determination.

CASA considers that the DAME system has worked well, and the MRS system has improved both the effectiveness and timeliness of the issue of medical certificates.

Fact bank: Technical working group (TWG) considerations

- The TWG considered the proposal for an expansion of CASA delegations to DAMEs to further decentralise the current model.
- The TWG reviewed the proposal for DAMEs to issue Class 1 and Class 3 certificates without CASA being involved in the process, unless required when being referred complex cases. The TWG added that issuing Cl 1 and Cl 2 medical certificates should be available for DAMEs that are interested and qualified, with oversight conducted by CASA . TWG also emphasised the importance of strong investment in training, audit, and quality assurance to allow for a more decentralised model.
- The TWG discussed challenges associated with delegation, including complex case management, the potential for inconsistency in decision making by delegated DAMEs, and financial considerations such as fair compensation for DAMEs conducting full examinations. The TWG acknowledged that inconsistency of outcomes will always be apparent, however noted that consistency in approach can be safeguarded with appropriate resources e.g., up to date current medical manual and training and Medical Records System (MRS) design as an additional safety measure (rules engines that recommends when CASA should be involved) .
- The TWG discussed CAA NZ's decentralised model. It was suggested that a decentralised model would need to be collaborative between DAMEs and the CASA, particularly for complex case management. The TWG also discussed providing DAMEs with the flexibility to opt in or out of being delegated to make assessments to issue certificates. In general, the approach taken should be less CASA involvement in routine decision making and a supported DAME network who have the confidence and skills to issue routine medical certificates for a variety of low risk medical conditions and by way of accredited medical conclusion and support for CASA complex medical cases where appropriate.
- The TWG emphasised the importance to ensure there is appropriate and sufficient guidance, training, and resources for any expansion of delegations to DAMEs. It was also noted that CASA will need to have sufficient resources for DAMEs to cater for the resultant increase in oversight and training requirements.

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Question 4 - What other things do you think we should explore to extend or improve DAME delegations

Response themes

28% of respondents did not make a comment, noted that they had nothing to add, or indicated that they were satisfied with the current DAME delegations.

Of the remaining 62% of respondents, common themes are listed below. Of note, 60% of comments (328 of the 551 who provided a response) indicated a desire for DAMEs to have expanded authority and responsibility for issuing medical certificates.

Expansion of DAME delegations: DAMEs should be empowered in decision-making and issuing certificates, with responses ranging from full authority to issue in all cases to DAMEs having limited authority to issue based on the medical situation.

Insert relevant comment

Variation of DAME authority: matching the authority of the DAME to issue the certificate, and the involvement of CASA, with the Class of the medical certificate.

Insert relevant comment

GPs and treating doctors: The responses ranged from allowing non-aviation treating doctors (GPs and other Specialists) to make the decision about medical certification without involving DAMEs or CASA, to allowing DAMEs to make final decisions based on GP and other Specialist advice.

Insert relevant comment

CASA's involvement: Responses included avoidance of CASA's involvement in medical certification altogether; only referring complex cases to CASA for decisions; or CASA's involvement being limited to quality assurance.

Insert relevant comment

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Theme 3 - Self-declared medical for private pilots

Topic 3 - Review other areas of aviation activity where medical certification could improve safety outcomes

Overview

We announced last year that for private operations we were looking at a potential 'self-declared' medical against a driver's license standard.

One idea is for a self-declared driver's licence medical certificate for recreational pilots to be regarded as a Class 5 medical certificate under the revised certification structure outlined in Topic 2.

A self-declared medical would provide an alternative and easier pathway than the current Basic Class 2. It would encourage greater participation across the industry and is an initiative in our GA workplan to encourage growth of the sector.

Feedback from our Technical Working Group is that while this is generally a good idea, this new type of medical should not add or replicate requirements for approved self-administering aviation organisations (ASAO) under Part 149 (e.g. RAAus). It is beneficial to have uniform standards for VH aircraft and ASAOs where their purposes and operations align (e.g. RAAus and private GA flyers). However, the different medical standards across the industry could add complexity for DAMEs.

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Fact bank: Technical working group (TWG) considerations

- The TWG discussed how a Class 5 self-declared medical certification would be administered and whether it would place additional (and replicated) requirements for aviation self-administering organisations (ASAOs) that operate under CASR Part 149, such as RAAus.
- The concept discussed was for CASA to set guidance for a self-declared medical certificate which is governed under CASR Part 67 and would allow certain organisations to continue to manage their own medical certification processes. In this instance, CASA's role would be to approve the processes and audit the organisation.
- Discussions also covered concepts for how ASAOs would continue to manage their assessments of self-declared medicals via their operations manuals through Part 149. The audit, compliance and oversight role of CASA for Part 149 organisations includes all elements of the ASAO's operations, which extends to the processes used by the ASAO for medical assessments and standards. CASA Avmed would work with the ASAOs to support their medical assessment processes to be safely and effectively managed under part 149, and for ASAOs would continue to be independent from the medical certification requirements for Part 67.
- The TWG considered introducing a Class 5 self-declared medical for VH-registered aircraft. The TWG discussed that the certification may be based on the Austroads private motor vehicle driving guidance. It was also noted that if the individual did not meet certain criteria, they would need a doctor to assess and issue the certificate and that CASA would need to provide guidance to support. CASA would also have an oversight and audit capability.

Question 5 - What do you consider to be the benefits of the Class 5 medical certificate concept?

Response themes

8% of respondents advised that they felt there were no benefits, and 85% of respondents identified benefits. The major theme for Question 5 responses was around improved and expanded access and availability: Class 5 would allow increased access to medical certificates for pilots based on reduced financial cost of the medical assessment; the Class 5 would be of reduced complexity and allow faster issuance of certificates. The self-declared

Class 5 would be a more flexible standard, which would mean more people could have a medical certificate.

Insert relevant comment

Question 6 - What do you consider to be issue and risks regarding the Class 5 medical certificate concept?

Response themes

54% of respondents advised no or low/minimal issues and risks, 36% of respondents identified issues and risks, with the remainder providing no response or indicating that they had no opinion.

Common themes included:

Safety: A self-declared Class 5 certificate may increase risk through non-compliance with self-declaration, where pilots with significant medical issues may not declare them. There may be increased risk due to permitting more pilots with complex medical conditions to fly.

Standards: There may be increased complexity or potential confusion over which standard applies to which pilot. A process for oversight should be considered to ensure standards are being applied correctly.

Operational considerations: A self-declared Class 5 certificate should consider the nature of the flying operations (aircraft type and registration, airspace, size, number of passengers, licence endorsements).

Access: Issues around levels of bureaucracy and administrative burden for pilots and organisations of administering a Class 5 self-declared model should be considered.

Insert relevant comment

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Theme 4 - Standards for drone pilots

Topic 4 - There are no current Australian medical standards in respect of remotely piloted aircraft operations. This is an area for future policy consideration, and we would like your ideas early.

Fact bank: Technical working group (TWG) considerations

- The TWG discussed the considerations associated with remotely piloted aircraft (RPA) operations. It was raised that the weight of the RPA and the type of operation being conducted may be appropriate parameters to consider whether medical certification would be relevant – such as through a matrix.
- The TWG considered the concept of a Class 3R medical certificate for higher risk operations, and no medical certification for lower risk operations (as opposed to staggered certification based on operational risk).
- The TWG discussed the levels of redundancy and on-board capability of RPAs in the context of loss of control or possible medical episodes causing a flyaway drone. It was noted that type certified RPAs have requirements for specific on-board capabilities, and that similar capabilities are generally found (but not required) for RPAs weighing 25kg and over.
- The TWG discussed the need for further information, such as the rate of failure for RPAs and further consideration of the risk level in the context of RPAs weight (e.g. 25kg vs 150kg).

Question 7 - Do you think there are any aviation medical considerations that should be considered for pilots of remotely piloted aircraft systems (e.g. drone size, category, type, distance flown, type of operation)?

Response themes

21% of respondents said there should be no aviation medical considerations for pilots of remotely piloted aircraft systems, while 58% of respondents agreed there should be considerations for pilots of remotely piloted aircraft systems. The remainder either provided no response or indicated that this did not have a position on this question.

The responses were around two major themes, related to the medical standards, the nature of operations, and how these should be matched in considering a drone operator medical standard. Higher risk operations (commercial, controlled air space, passenger carriage, larger drones, higher altitude, outside line-of-sight) should be considered for a medical standard, while lower risk operations may have a lower medical standard or no medical standard. Respondents also indicated that CASA should consider the approach of other jurisdictions.

Insert relevant comment

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Theme 5 - Flight instructors in sport and recreation

Topic 5 - Establish whether the current structure of medical certification for recreational aviation is fit for purpose

Overview

Given the importance of flight instructing as a keystone of aviation safety, it is appropriate to explore whether the general practitioner endorsement of the medical status of an instructor in the sport and recreational sector is a sufficient level of medical clearance.

Fact bank: Current medical requirements for flight instructors

Under the flight crew licensing rules (Part 61 of CASR) a flight instructor involved in flying training must hold a private, commercial or air transport pilot licence, and the relevant medical certification to enable the exercise of the privileges of their licence. An instructor in the sport and recreational aviation sector is required to hold a higher medical standard than that of recreational pilots. For example, Recreational Aviation required minimum for an instructor is a CASA Class 2 Aviation Medical Certificate or higher, or RAAus Medical Questionnaire and Examination form completed by the candidate's General Practitioner. The Gliding Federation of Australia also requires instructors to maintain their Medical Practitioner's Certificate of Fitness.

As with other forms of aviation, instructor incapacity contributing to incidents and accidents in the sport and recreational aviation sector is rare. However, given the importance of instructing as a keystone of aviation safety, it is appropriate to ask as part of a review of Part 67 whether the general practitioner endorsement of the medical status of an instructor in the sport and recreational sector is a sufficient level of medical clearance.

For example, Transport Canada's category 4 medical certificate which is primarily for recreational, ultralight and glider pilots, requires glider and ultralight Instructors to provide a medical report within five years of issue or revalidation regardless of age, and for those over 40 need an ECG at first examination and every five years thereafter. However, pilot incapacitation remains an uncommon event and while instructor incapacitation does happen (as was the case at Jandakot in August 2019 where the student pilot needed to land the aircraft after the instructor became unconscious) such an occurrence is even rarer

Fact bank: Technical working group (TWG) considerations

The TWG questioned whether a higher medical standard for instructors would actually provide extra safety outcomes.

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Question 8 - Should a higher level of medical certification (e.g. a CASA Class 2 medical certificate) be required for flight instructors in the sport and recreational sector?

Response themes

Where a response was provided (from 86% of respondents), slightly more indicated a desire for a higher medical certificate for sport and recreational examiners than those who felt the medical standard should not be different to for the instructor and the student – 47% for a higher standard compared with 39% for the same standard. Common themes in these responses included:

Evidence: The decision on whether a higher medical standard is required for instructor compared to student should be based on data around medical incapacitation of instructors. The experience and approach of other jurisdictions should be considered.

Access: The impact on availability of instructors if higher medical standards are required should be considered.

Risk: The instructor medical standard should be matched to the level of risk and the nature of instruction (considering experience, flight profile, aircraft factors). This should inform what medical standard should be applied (such as self-declared, Austroads, or Part 67).

Insert relevant comment

Theme 6 - Modernising the rules

Topic 6 - Examine the Part 67 regulation to ensure it is up to date and fit for purpose

Overview

The Part 67 rules contain significant amounts of outdated material and information that, if it were being drafted now, would properly belong in a Manual of Standards (MOS) and advisory documents, rather than in the regulation itself.

Placing certain provisions in guidance material e.g. DAME Medical Manual will make it easier to change and update than having it in regulations. This will allow us to keep pace with advances in medical practice and the evolution of aviation medical regulation.

We understand that regulations can be difficult to read, so we plan to make it easier for you in the future by publishing a Plain English Guide to Part 67. It will set out the regulatory requirements in a concise, clear easy to read and practical format. It would mainly be for those who require medical certification (pilots and air traffic controllers) with some basic information for aviation medicine providers.

The type of information we would expect to include in a MOS would be the technical and operational detail governing the application of the regulations for:

- AMP training courses
- Appointment of Aviation Medical Practitioners (AMPs) (see note below)
- AMP currency and performance management
- Classes of medical certificates
- Medical standards for certificate classes
- Supporting processes to issue, renew, restrict, suspend and cancel medical certificates
- Supporting processes for assurance of quality and safety in aeromedical certification
- Any other processes to support Avmed in providing safe and effective medical certification and aeromedical safety systems.

Note: Definition of AMPs - Aviation Medical Practitioner, being any medical practitioner involved in decision-making for aviation medical certification including DAMEs, treating doctors and GPs

Fact bank: Technical working group (TWG) considerations

- The other matters discussed at the TWG revolved around what could potentially be included in a MOS e.g. standards for testing vision or conducting a stress echocardiogram etc and what is outside MOS and can be more regularly updated to be current e.g. DAME Medical Manual.
- The TWG also discussed some of the other work and engagement conducted by CASA Aviation Medicine, such as holding clinical case conferences to strengthen engagement and transparency in medical decision-making. Avmed will also be conducting regional engagement and have regular slots at FlySafe events around the country.
- The TWG discussed the benefits in having the Principal Medical Officer (PMO) conducting regular engagement with aviation associations, organisations, and pilot groups.

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Question 9 - Are there any other things we should consider making sure Part 67 is up to date and fit for purpose?

Response themes

57% of respondents provided considerations/comment, 30% of respondents said there were no additional considerations or no opinion/comment, and the remainder did not provide a response to this question.

Common themes across the feedback included:

Evidence and standards: Refer to the experience and approach of other jurisdictions, including consultation and feedback. Need for risk-informed and evidence-based approach to medical standards, with guidance and manuals that are in line with current best medical practice

Access and process: Consideration of complexity, time and cost around the examination and certification processes. Need for clarity on decision authority including role of CASA, DAME, GP and treating specialist

Insert relevant comment

Theme 7 - Final feedback

Topic 7 - Consider any other relevant matters

Overview

Our review of the aviation medical rules aims to simplify and modernise our overall approach to medical certification.

Response themes

Question 10 - In addition to the information you have already provided, do you have any final suggestions to help shape our review of aviation medical policy?

77% of respondents provided final suggestions. Common themes included:

Evidence and standards: Reference should be made to other jurisdictions' certification systems. Importance of ensuring risk and evidence are considered in decision-making, which supports the matching of medical standards with the nature and risk of the operations.

Insert relevant comment

Access and process: Support for simplification and introduction of GP and self-declared certificate options, alongside clarity and simplification of the CASA decision and certification system. The importance of considering access and cost to the certificate-holder.

Insert relevant comment

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Future direction

The Summary of Consultation will be considered by the TWG along with their deliberations to date, and the entirety will be used by the TWG in formulating their recommendations to the ASAP. This will occur in September and October 2022.

CASA will subsequently engage with the TWG to develop draft policy positions and potential regulatory changes in late 2022 and early 2023. Those draft policy positions will undergo further public consultation in the first half of 2023.

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CASA Board Paper

Board Meeting 6-2022

Canberra

Agenda Item:	**6.2**
Board Action:	**Note**
Subject:	**Part 67 Reform and Medical Certification Structure**
Origin:	Board Action Item
Prepared by:	Aviation Medicine

Desired Outcome:

1. To provide an update on the status of Part 67 medical reform.

Executive Summary:

2. Substantial progress is being made towards delivery of reform of CASR Part 67 (Medical Certification). This reform comprises two key elements:
    a. Review of the structure of medical certification
    b. Review of the processes governing all aspects of medical certification
3. The reforms are being informed by industry consultation through a Technical Working Group (TWG) established under the Aviation Safety Advisory Panel (ASAP), broader industry consultation and international engagement (including ICAO and other regulators).
4. The ASAP Chair has recently provided advice supporting recommendations made by the Technical Working Group who considered feedback from the public consultation conducted earlier this year.
5. The recommendations included:
    a. Simplification of the medical certification structure
    b. Introduction of a 'self-declared' medical for general aviation pilots
    c. Expansion of delegations held by Designated Aviation Medical Examiners (DAME)
    d. Consideration of medical standards for Remotely Piloted Aircraft Systems
    e. Modernisation of Part 67
6. The ASAP specifically recommended that the policy on self-declared medical certification for private pilots be considered for delivery ahead of the wider reforms.
7. Delivery of the reform will ultimately be in the form of the making of a new Part 67 through legislative processes. As these processes take considerable time (potentially late 2024), interim delivery of specific outcomes is being scoped for potential implementation ahead of the regulatory change.
8. In addition to a self-declared medical, other specific outcomes being planned for potential early delivery include a system of clinical governance and professional development for medical practitioners. This would support a pathway for aeromedical decision-making that moves the role of CASA Avmed to one of governance and quality assurance.

Background:

9. The **structural review** relates to the classes of medical certificate that are issued under Part 67, including the medical standards that are required for each class, and the nature of operations permitted for each class.

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10. The TWG recommendation for the delivery of a new self-declared medical certificate is now being developed in detail. Policy options are being prepared for consideration by our Aviation Safety Committee.
11. Options will include the established 'self-declared' medical scheme implemented by Recreational Aviation Australia which is limited to lightweight aircraft, a single passenger and a number of other operational constraints. Other options will consider a more flexible certifications with a greater level of medical assurance but less operational restriction.
12. The self-declared medical envisaged by the TWG had the following attributes:
    a. A medical standard that is based on the unrestricted private motor vehicle driver standard, augmented with some important aviation-specific additions which recognise the unique stressors of the flight environment while providing flexibility for the applicant and their collaborating medical practitioners.
    b. The opportunity for pilots to self-declare their medical status against this standard.
    c. The option for a further review where necessary by a suitably qualified medical practitioner, rather than requiring the non-eligible applicant to step up to a Class 2 medical.
    d. The medical standard and operational limitations under this new medical process to be risk assessed such that they support the majority of recreational flying activities for private pilots.
13. The **process review** includes governance, compliance and regulatory elements. Many of these governance processes are not dependent on legislative change, as they are provided for under flexibility provisions of Part 67 (as well as ICAO) and provisions for incorporation by reference in the DAME Handbook. These include:
    a. Credentialling, currency, professional development and performance management of various categories of aviation medical examiners
    b. Automated, DAME and Avmed assessor issuance for a wider range of low and moderate risk medical certificates
    c. Introduction of independent and collaborative review opportunities within and external to CASA for disputed decisions.
14. The review of processes will improve the effectiveness of Part 67 by providing clear directions for compliance, both in the Regulations and in a new Manual of Medical Standards. The removal of ambiguity and provision of clarity will support CASA, individual certificate-holders, aeromedical decision-makers and aviation industry with medical certification that is an enabler, rather than a barrier, to a thriving, safe aviation industry.
15. The next steps in the reform program is consideration of options by the Aviation Safety Committee to inform the development of further detailed policies in the first quarter of 2023.
16. Consultation steps are expected to include re-convening of the Technical Working Group to assist with detail followed by broader consultation in the first half of 2023 on specific detail.

Recommendation:

It is recommended the Board **note** the status on Part 67 medical reform.

Prepared by: Dr Kate Manderson, Principal Medical Officer

Approved by: Andreas Marcelja, EM Stakeholder Engagement Division

Date: 28 November 2022

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Class 4 Pilot questionnaire.

Initial application – complete the questionnaire

X You are not eligible for self-declared or GP-issued Class 4, but you may be eligible for a different (CASA-issued) medical certificate.

X You are not eligible for a self-declared Class 4 medical certificate, but you may be eligible for a GP-issued Class 4.

Blackouts

Parent Question 1: Have you ever experienced episodes of collapse, blackouts or loss of consciousness (other than simple fainting)?

X No = no further questions for this item.

X You are not eligible for self-declared or GP-issued Class 4, but you may be eligible for a different (CASA-issued) medical certificate.

- Any loss of consciousness for which a reason has not been found

AFTD permits driving with recurrent blackouts of unknown cause if the treating doctor considers the risk of crash is "acceptably low".

Cardiovascular conditions

Parent question 2: Have you been diagnosed with, or do you have symptoms of, a cardiac or cardiovascular condition?

X No = no further questions for this item.

X You are not eligible for a self-declared Class 4 medical certificate, but you may be eligible for a GP-issued Class 4.

- Ever had a heart attack
- Ever had a coronary artery blockage, bypass or stent
- Ever had surgery for congenital heart disease
- Ever had a collapse or near-collapse due to a heart rhythm problem
- Ever had a cardiac arrest
- Have an abnormal ECG that has not previously been cleared for a Class 4 medical
- Currently have or need a cardiac pacemaker
- Have any untreated aortic aneurysm
- Have any untreated heart valve disease
- Have atrial fibrillation
- Blood pressure reading of >200 systolic or >110 diastolic in the last 12 months (if more than 12 months, there must be a more recent reading that is below these limits)
- *Have a pulmonary embolism in the last 2 years*

X You are not eligible for self-declared or GP-issued Class 4, but you may be eligible for a different (CASA-issued) medical certificate.

- Have any current symptoms due to:
  - Angina
  - Heart valve issues

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    - Heart failure
    - Heart rhythm issues
    - Heat structure issues including congenital
    - Cardiomyopathy
    - Fainting or low blood pressure
    - Blackout or collapse from a cardiac cause
- Currently have or need a cardiac defibrillator
- Ever had a heart transplant
- Have or need a Ventricular Assist Device
- Any blood pressure reading in the last 12 months >200 or >110
- *Have any bleeding complication due to anticoagulation in the last 12 months*

AFTD allows:

- treating doctor can support driving with cardiac symptoms as long as they are "minimal"
- driving with a defibrillator with limits on how recently and how often it's activated
- driving after heart transplant
- driving with a history of sudden cardiogenic syncope (collapse)

Diabetes mellitus (any type)

Parent question 3: have you ever been diagnosed with diabetes?

X No = no further questions for this item.

X You are not eligible for a self-declared Class 4 medical certificate, but you may be eligible for a GP-issued Class 4.

- Have any retina changes due to diabetes

X You are not eligible for self-declared or GP-issued Class 4, but you may be eligible for a different (CASA-issued) medical certificate.

- Have any severe hypoglycaemic episodes in the last 12 months
- Use any insulin treatment

AFTD allows

- driving with history of severe hypoglycaemic events if the event has been "satisfactorily treated" **and** there are early warning symptoms of the event
- driving while treated with insulin provided no "recent" hypos, early warning for hypos, treatment plan minimises risk of hypos, no end-organ effects.

Hearing loss and deafness

Parent Question 4: do you wear hearing aides?

X Yes or no = no further questions for this item. Reminder only.

- *If hearing aids have been prescribed, they must be worn to exercise the privileges of the Class 4 medical certificate*

AFTD has no restriction or standard for hearing impairment in PDL.

Musculoskeletal conditions

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Parent question 5: Do you have any bone, joint or other musculoskeletal problem that requires ongoing treatment or causes movement restriction?

X No = no further questions for this item.

X You are not eligible for self-declared or GP-issued Class 4, but you may be eligible for a different (CASA-issued) medical certificate.

- *Use any prosthesis, splint or other device*
- *Experience musculoskeletal pain that requires treatment with narcotic analgesics more often than once per week (must not exercise Class 4 privileges for 24 hours after last narcotic dose)*

AFTD allows driving with prosthetics, modified vehicles and other devices, and no specific restrictions or exclusions of medications.

Neurological conditions

Parent question 6: Do you have any medical conditions of the brain or nervous system (excluding mental health or psychiatric – see below)?

X No = no further questions for this item.

X You are not eligible for a self-declared Class 4 medical certificate but you may be eligible for a GP-issued Class 4, if you have:

- Cerebral palsy
- Neuromuscular disorder
- Parkinson's disease
- Multiple sclerosis
- Neurodevelopmental conditions
- TIA
- Head injury with loss of consciousness

X You are not eligible for self-declared or GP-issued Class 4, but you may be eligible for a different (CASA-issued) medical certificate, if you have:

- Any seizure disorders (NOT eligible for any CASA medical certificate)
- Any degree of cognitive impairment
- Meniere's disease
- Intracranial space occupying lesion
- Intracranial surgery within the last 12 months
- Any brain aneurysms that is untreated or has previously ruptured
- Intracranial haemorrhage
- Stroke with any residual deficit
- Head injury with ongoing impairment

AFTD allows:

- driving with seizure disorders if no seizure for 1, 3 or 6-12 months and compliant with medication, or the seizure is "safe"
- if the treating doctor considers it safe, driving:
    - with dementia
    - with brain tumour
    - after a stroke, including with residual deficit,

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- after subarachnoid haemorrhage
- with all other neurological disorders

Psychiatric conditions

Parent question 7: Have you been diagnosed with a psychiatric or mental health condition in the last 5 years, or are currently being treated for a mental health condition?

X No = no further questions for this item.

X You are not eligible for a self-declared Class 4 medical certificate, but you may be eligible for a GP-issued Class 4.

Being treated (or require treatment) for:

- *Bipolar disorder*
- *Major Depressive Disorder*
- *Anxiety disorder*
- *Schizophrenia*
- *Hospital admission for mental illness in the last 12 months*
- *Suicide attempt in the last 12 months*

AFTD allows all psychiatric conditions if stable, treatment-compliant, medications acceptable.

Sleep disorders

Parent question 8: Have you ever been diagnosed with, or do you have any symptoms of, a sleep disorder?

X No = no further questions for this item.

X You are not eligible for a self-declared Class 4 medical certificate, but you may be eligible for a GP-issued Class 4.

- Sleep apnoea on treatment
- *STOPBANG score of >xxx*

X You are not eligible for self-declared or GP-issued Class 4, but you may be eligible for a different (CASA-issued) medical certificate.

- Narcolepsy *or catalepsy*
- Untreated sleep apnoea

AFTD allows narcolepsy if sleep physician considers it safe.

Substance misuse

Parent question 9: Have you been diagnosed with, or do you have symptoms of, problematic use of substances or a substance misuse disorder?

X No = no further questions for this item.

X You are not eligible for self-declared or GP-issued Class 4, but you may be eligible for a different (CASA-issued) medical certificate.

- *Score more than 3 on AUDIT*
- *DUI / conviction etc in the last 12 months*

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- *Problematic use of substances or substance misuse disorder*
- *Any use of any medicinal cannabis product that contains THC*

AFTD allows driving with substance use disorder after 1 month of remission and in a treatment program.

Vision and eye disorders

Parent question 10: Do you have a vision disorder other than reduced visual acuity below the stated standard?

X No = no further questions for this item.

X You are not eligible for a self-declared Class 4 medical certificate, but you may be eligible for a GP-issued Class 4.

- Deficit of the visual field

X You are not eligible for self-declared or GP-issued Class 4, but you may be eligible for a different (CASA-issued) medical certificate.

- Loss of vision in one eye (monocularity)
- Binocular corrected visual acuity of worse than 6/12, or worse eye is worse than 6/24

AFTD allows:

- VA in one eye only at 6/24 if optom or ophthal considers it safe
- 20 degree central field of view and 110 degrees binoc horizontally and 20 degrees vertically from midline
- monocularity if 6/12 and 110x20 field
- diplopia treated with occlude (see monocularity)

Neurodevelopmental disorders

Parent question 11: Have you been diagnosed with, or are you being treated for, a neurodevelopmental disorder?

X No = no further questions for this item.

X You are not eligible for a self-declared Class 4 medical certificate, but you may be eligible for a GP-issued Class 4.

- *Any neurodevelopmental disorder*

AFTD has no specific restriction on neurodevelopmental disorders

Respiratory disorders

Parent question 12: Have you been diagnosed with, or do you have symptoms of, a chronic or severe respiratory disease?

X You are not eligible for self-declared or GP-issued Class 4, but you may be eligible for a different (CASA-issued) medical certificate.

- *unable to walk more up more than 2 flights of stairs (10 steps) without stopping due to difficulty breathing*
- *requiring any home oxygen therapy*

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AFTD has no specific restriction on respiratory disorders.

Reminders for all pilots that they must not fly if they are experiencing:

Pregnancy disorders

- *Pre-eclampsia*
- *Placenta previa or vasa previa*
- *Preterm or premature rupture of membranes or other threatened early labour*
- *Within 14 days after of the end of a pregnancy*

Gastrointestinal disorders

- *inflammatory bowel disease that is currently symptomatic*
- *gall stone or gall bladder disease that is currently symptomatic*

Renal and urological disorders

- *kidney stones that are currently symptomatic*

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Aviation Safety Committee Paper

ASC Meeting No.51

Agenda Item:	**TBA**
Board Action:	**Decision**
Subject:	**Class 4 Aviation Medical Certificate Model**
Origin:	[ASC action item?]
Prepared by:	SED (CSC-Avmed-PMO)

Desired Outcome:

1. ASC endorse the progression of work towards the proposed Class 4 aviation medical certificate under Part 67 with a view to implementation by instrument in late 2023.

Executive Summary:

2. A self-declared aviation medical certificate under Part 67 of CASRs is an important step in the modernisation of recreational aviation medical certification in Australia. For safe and effective implementation in a timely manner, CASA Avmed proposes a Class 4 self-declared medical certificate using a of a fit-for-purpose standard that is augmented by a decision-making pathway for flexible application by the pilot's suitably qualified Specialist GP.

Background:

3. Multiple rounds of consultation with stakeholders and participants in the Australian private and recreational aviation community over the last two decades have identified the importance of a self-declared aviation medical certificate. Stakeholders have sought alignment with other similar regulators including FAA, CAA UK, CAA NZ and CAA Canada. While each of these regulators' models has merits, none of them have the scope and flexibility that CASA is seeking. Attachment A details the differences in the key medical certification features of private and recreational type certificates, demonstrating the benefit of the CASA proposed approach.
4. Various approaches to self-declared medicals over the last two decades have been implemented external to Part 67 in an attempt to provide an accessible, flexible and safe recreational aviation medical certificate. These include the RAMPC, Basic Class 2 exemption and fitness assessments by ASAOs. Each of these have not been able to entirely deliver the desired outcomes, partly because they have not been supported by the comprehensive governance and implementation system that is provided with Part 67 medical certificates. As part of the reform of Part 67, a new "Class 4" self-declared aviation medical certificate is proposed to be formalised within the regulations, which will provide these extra layers of safety needed to support accessibilty and flexibility.
5. The Aviation Medicine TWG has considered options based on broad industry consultation and expert advice. Their recommendation is of a self-declared Class 4 within a strong framework of safety and quality assurance. The framework proposed by CASA Avmed to deliver this includes:
    a. development of a fit-for-purpose recreational aviation medical standard aligned with the private motor vehicle standards,
    b. simple and clear advice for users of this standard for self-declaration,
    c. pathways for escalation of decision-making to Specialist General Practitioners (SGPs) or to CASA for certification,
    d. focused training for SGPs with clear directions for application of the flexible recreational aviation medical standard, and

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e. assurance of the safe and effective use of the Class 4 certification process through CASA audit and oversight.

6. This approach allows Australia's version of the recreational aviation medical certificate to be more flexible and therefore more widely accessible by the general aviation community than those available in the jurisdictions listed above. Uniquely, CASA's approach will mean that the pilot's assessing SGP will be able to work with CASA and independent aerospace medicine specialists to apply a more flexible standard and make this certificate accessible even to pilots with medical conditions that would be excluded internationally. The proposed pathway for the Class 4 medical certificate is outlined in Attachment B.
7. Operational considerations are critical to the safe implementation of the Class 4. Appropriate but not excessive operational restrictions will balance the increased acceptance of medical risk, to achieve an optimal outcome that permits the majority of recreational pilots to undertake the majority of recreational activities. The scope of operations has been determined through a series of focused risk-assessment workshops within CASA, referencing existing licensing and certification restrictions and those of other jurisdictions, and set within the CASA Board's regulatory risk appetite and Australia's aviation safety system obligations.
8. Second-order benefits of the introduction of this Class 4 certificate include the potential transfer of significant numbers of private pilots from Class 2 across to Class 4. This may result in an improved capacity for CASA and authorised DAMEs to issue Class 1, 2 and 3 certificates. Further secondary benefits include readiness in advance for a likely move by ICAO towards a recreational aviation medical certificate, and readiness for delegation of more complex cases to non-CASA aerospace medicine specialists.
9. Introduction of the Class 4 medical certificate in this proposed form has the broad support of all major stakeholders and participants and will deliver an important outcome for the recreational aviation community. Delaying introduction until the making of the new Part 67, likely to be in 2025, will not provide any additional benefit from a safety or legislative perspective, but will erode confidence and goodwill within the industry. It is therefore proposed that the Class 4 medical certificate is implemented by instrument in 2023, after development of the above systems and processes, and subsequently incorporated in the new Part 67.

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Recommendation:

It is recommended the ASC **approve** the development of the proposed Class 4 recreational medical certificate and supporting governance systems and policies, for implementation by instrument in 2023.

Proposed Resolution:

The ASC approved the development of the proposed Class 4 recreational aviation medical certificate and supporting governance systems and policies, for implementation by instrument in 2023.

Prepared by: Dr Kate Manderson, Principal Medical Officer

Approved by: Andreas Marcelja, EM SED

Date: Day/Month/Year

Attachments:

A Class 4 Comparison Tables

B Class 4 Pathways to Certification

DISCUSSION PAPER

Review of Part 67 Aviation Medicine

November 2020

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Contents (to be completed prior to release)

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Introduction

Medical fitness is a licensing requirement under the provisions of Annex 1 to the *Convention on International Civil Aviation* , and Australia is required to implement a system of medical assessment (within the definition and requirements of Annex 1) to ensure that flight crew licence (FCL) and air traffic control (ATC) holders are medically fit to exercise the privileges of their licences.

Part 67 of the *Civil Aviation Safety Regulations 1998* (CASR) prescribes the requirements relating to medical certification. Part 67 details the regulations, including the appointment of examiners, the issue, renewal and cancellation of medical certificates and the relevant medical standards for different classes of certificate.

Part 67 applies to medical examiners designated to perform medical examinations of medical certificate holders, all pilot license holders, all air traffic license holders and anyone who seeks to be certified as meeting the medical standards in Part 67. A current medical certificate is required for pilots and air traffic controllers to exercise the privileges of their licences. Part 67 was made in September 2003 and while post implementation reviews commenced in 2004 and in 2011, these were not completed.

This discussion paper proposes a number of changes to Part 67 with subsequent consequentials to Part 61 designed to simplify and modernise CASA's overall approach to medical certification. Of most interest to Australia's aviation and aviation medical community are proposals to better align the classes of medical certification related to private and recreational flying.

CASA has been streamlining its approach to medical certification for some time building on the introduction of its new Medical Records System in March 2016. A previous discussion paper exploring various policy issues was published in December 2016, feedback from which shaped several significant reforms during 2018 including:

1. the issue of an exemption to permit a pilot engaged in commercial flights **that do not carry passengers** (up to a maximum take-off weight of 8618 kilograms) whilst holding a Class 2 medical certificate.
2. After completing the required training, all DAMEs given the option to issue Class 2 medical certificates on the spot in most circumstances.
3. the issue of an exemption to create a new category of private pilot licence medical certificate (Basic Class 2) which can be assessed by any medical practitioner against the unconditional commercial driver standard.

These changes, made through instruments, were not included in Part 67. This discussion paper now commences a holistic review of Part 67 to determine whether these reforms should be included in regulation and whether further changes to medical certification are necessary. The process will be guided by a Technical Working Group of industry and aviation medicine experts, established by the Aviation Safety Advisory Panel process.

In preparing this discussion paper, CASA is aware that aviation medicine is a very dynamic field with medical advances and technology having major potential implications for aviation safety. In this fast-changing field, we need to have flexibility and a willingness to make the best use of developments that enhance aviation safety. Your comments will help shape the future of aviation medicine, and I thank you in advance for your effort and contributions.

Shane Carmody
Chief Executive Officer and Director of Aviation Safety

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CASR PART 67 MEDICAL

Key Principles

CASA is proposing to undertake a review of Part 67 and associated processes. The elements of this review include to:

1. examine Part 67 to ensure it is up to date and fit for purpose;
2. assess the implementation and outcomes of Basic Class 2 certification and of other changes to the Class 2 certification process;
3. determine the effectiveness of CASA delegations to DAMEs and whether these could be extended or improved, or whether DAMEs can be given direct authority under the regulations to issue medical certificates;
4. consider other areas of aviation activity where medical certification could improve safety outcomes;
5. establish whether the current structure of medical certification for recreational aviation is fit for purpose; and
6. consider any other relevant matters.

Background

Part 67 of the CASR was made in 2003 and prescribes the requirements relating to medical certification, designated aviation medical examiners and designated aviation ophthalmologists. Part 67 details the following:

- appointment of examiners
- application for certificate
- medical standards relevant to the different classes of certificate.
- issue and renewal of certificates
- suspension and cancellation of certificates
- Modified Austroads medical standard
- Responsibilities of holders of certificates.

The current regulation is available at:
https://www.legislation.gov.au/Details/F2019C00821/Download

Previous post implementation reviews (PIR) of Part 67 in 2004 and 2011 were not completed. This means that the bulk of the regulation is essentially as made in 2003 except for the addition of the additional criteria for the Recreational Aviation Medical Practitioner's Certificate (RAMPC), introduced by the *Civil Aviation Legislation Amendment (Flight Crew Licensing) Regulation 2014* in September 2014.

A range of changes to the aviation medical certification system were introduced in 2018 by instrument:

- From March 2018: a Class 2 medical certificate is permitted for pilots operating commercial flights that do not carry passengers (up to a maximum take-off weight of 8618 kilograms).
- From April 2018: all DAMEs have the delegation to issue Class 2 medical certificates on the spot for applicants meeting the standard in most circumstances.
- From July 2018: a new category of private pilot medical certificate (Basic Class 2) is available and can be assessed by any medical practitioner against the commercial driver standard.

These changes came about following the release for public consultation of a CASA discussion paper on medical certification standards released in December 2016:

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https://www.casa.gov.au/files/dpmcs201612pdf.

That paper provided a detailed discussion of CASA's approach to medical certification and readers are referred to that paper for details of the current approach.

This review suggests a simplification of CASA's overall approach to medical certification with the intention of providing greater flexibility and less onerous processes.

i) EXAMINE PART 67 TO ENSURE IT IS UP TO DATE AND FIT FOR PURPOSE

The absence of a PIR for Part 67 has meant that the regulation as it currently stands contains significant amounts of outdated material and includes information that, if it were being drafted now, would properly belong in a Manual of Standards (MOS - see below) and advisory documents rather than in the regulation itself. The bulk of the current Part 67, focusing as it does on details of the appointment of medical examiners and the issue, renewal and cancellation of medical certificates is of particular relevance to medical examiners and to CASA staff responsible for managing this area.

While CASA is proposing to update and amend sections of Part 67 concerned with the appointment of medical examiners to enable clearer and more concise regulation, a revised draft of the text of Part 67 will be subject to legal preparation and to further public consultation.

While that legal wording is not yet available, it is intended that where possible, details of medical examiner appointments and conditions are to be removed from the regulation, and potentially empowered by a MOS which could subsume the current Designated Aviation Medical Examiner (DAME) Handbook, which provides guidance to aviation medicine professionals about their role as DAMEs. The current version of the (DAME) Handbook is available at: https://www.casa.gov.au/information-dame-dao-co-and-medical-specialists/publication/designated-aviation-medical-examiners-handbook. This Handbook will be updated at the conclusion of the review.

The focus of this paper is therefore on the tables setting out the medical criteria for the various classes of medical certificates, including suggesting some important changes to classes of medical certificates. The content of these tables is largely derived from ICAO Annex 1 and have been retained to ensure broad conformity with it. Changes proposed by past reviews of Part 67 are included where still relevant (eg to ensure alignment with later changes to Annex 1).

Additional material on medical issues added by CASA to the medical criteria tables could, where necessary, now be included in a Manual of Standards (DAME Handbook) and in advisory material currently titled '*DAME clinical practice guidelines.* These Guidelines describe how CASA expects DAMEs will approach particular medical issues during examinations, indicate relevant factors and limitation types CASA may consider when deciding aviation medical certificate applications and which also cover specific medical conditions. This step will ensure that medical developments can be readily included in guidance material instead of being part of the regulation.

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Question for stakeholders

- **Aside from the changes outlined above, are there any other policies that should be considered in a legal draft of Part 67?**

ii)ASSESS THE IMPLEMENTATION AND OUTCOMES OF BASIC CLASS 2 CERTIFICATION AND OF OTHER CHANGES TO THE CLASS 2 CERTIFICATION PROCESS

Basic Class 2 medical certificate

The introduction of the Basic Class 2 medical certificate in 2018 through an exemption gave an alternative medical certification pathway for around 1,400 private pilots flying piston engine powered aircraft with a maximum weight of 8618kg, below 10,000 feet, and carrying up to five non-fare-paying passengers to get a medical certificate. The Basic Class 2 can be assessed by a pilot's medical practitioner, based on Austroads standards currently used to assess unconditional commercial vehicle drivers. Operations are limited to daytime visual flight rules and are permitted in all classes of airspace except Class A.

For the first year of operation CASA audited Basic Class 2 medical certificates against existing medical records and discovered that ~~initially~~ a number of applicants ~~(44)~~ applied for a Basic Class 2 medical certificate despite having a medical condition which disqualified them from obtaining this certificate. The education of general practitioners in assessing applicants' full medical history and understanding the disqualifying conditions is an important step in overcoming such issues, as well as any necessary ongoing auditing and quality assurance by CASA.

Although the take-up of the Basic Class 2 was relatively slow at the start, in CASA's view the adoption of the Basic Class 2 certificate has been a success with no developing safety issues and with over 2300 Basic Class 2 medical certificates issued by CASA. The review of Part 67 now presents an opportunity to build the principles underlying the Basic Class 2 into Part 67. At the same time CASA is also considering simplifying the medical certification structure.

At this stage CASA does not propose to change the medical certification processes for Class 1, Class 2 or Class 3 (except to simplify the medical certification tables as outlined in Attachment A).

Proposed class 4 medical certificate

CASA is considering introducing a Class 4 medical certificate which would combine elements of the Basic Class 2 and the RAMPC. As with the Basic Class 2, assessment would be conducted by medical professionals, such as general practitioners, with applicants needing to unconditionally meet the Austroads commercial driving standard, except for glasses or hearing aids. Applicants with complex conditions would still need to be examined by a DAME. The RAMPC would no longer be issued and it is proposed that CASR 61.505 be amended to remove the reference to the RAMPC and substitute that with a class 4 medical certificate.

The operational conditions attached to a Class 4 medical certificate would be similar to those applying to the Basic Class 2, as follows:

- Must not have had a CASA-issued medical certificate cancelled, suspended or refused in the past
- Not available for operations in Class A airspace
- Single-engine aircraft regardless of power plant
- No aircraft weighing more than 8618kg kg
- Flight by day under the Visual Flight Rules only and only below 10,000 feet

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- No formation flight or aerobatics under 3000' above ground level
- A maximum of five passengers who must be told of the lower standard
- Private operations, receiving flight training or submitting to a flight test
- Flight not operated for compensation or hire.

Validity periods for a Class 4 certificate would the same as for the Basic Class 2: up to 5 years (<40yo); up to 2 years;(>40yo) and up to 1 year (>70yo). Pilots would also be required to contact their medical practitioner for any condition continuing for longer than 30 days.

The Basic Class 2 certificate has not been without some risks, in particular the lack of initial entry control by CASA in relation to a pilot's initial entry into active participation in Australian aviation.

Approximately 40% of pilots with the Basic Class 2 certificate have not held a CASA medical certificate previously, thus raising the issue of consistency for entry into the pilot cohort. This concern was discussed by the panel of the Aviation Safety Regulation Review in 2014:

> *The Panel is also concerned that allowing DAMEs to issue initial medical certificates for new pilots and controllers may open a risk of increased inconsistency. Retaining initial medical certificate issuance in-house would allow CASA's aviation medicine team to retain greater visibility of certificate holders' entry into the medical certificate system, while still allowing renewals to be carried out at the DAME level (p.144).*

In its 2015 study" Pilot *incapacitation occurrences 2010-2014"* the Australian Transport Safety Bureau found that there were 23 pilot incapacitation occurrences reported per year on average but nearly 75 per cent of the incapacitation occurrences happened in high capacity air transport operations. However, the Bureau also observed in regard to general aviation:

> *Given the different licence types and associated medical certification requirements for general aviation pilots, the presence of pre-existing medical conditions is less likely to be known. Additionally, issues such as cardiovascular problems have been found to be one of the causes of pilot incapacitation (Table 2). It is likely that cardiovascular problems feature more prominently in general aviation accidents, but evidence of this is often difficult to establish with certainty, particularly in fatal accidents* (pp.17-18).
> https://www.atsb.gov.au/media/5768970/ar-2015-096-final.pdf

An associated issue is the extent to which the Austroads standards are sufficiently clearly expressed for the purposes of aeromedical certification, given there may be some divergence between the understanding and practice of general practitioners in applying Austroads and CASA's expectations of this process. The adoption of Austroads as a proxy standard has advantages over the development of a bespoke set of standards for private and recreational certification.

CASA is considering whether applicants for a Class 4 medical certificate should have a higher point of entry such as a requirement for applicants to have held a Class 1, 2 or 3 medical certificate in the 10 years prior to their application, and thus be known to CASA. Therefore, the Class 4 medical certificate would not be available for initial issue by a general practitioner. This provision would be similar to the condition applied to the BasicMed certificate scheme in the United States whereby applicants are first required to have held a medical certificate at any time after 15 July 2006.

At the same time CASA is aware that this provision would raise the entry point to Class 4 privileges for pilots and if a Class 4 medical was implemented, pilots previously holding a Basic Class 2 would be transitioned to a class 4 medical certificate subject to a one-off visit to a DAME, at a low regulatory cost, to capture the person into CASA's aviation medical system. A Basic Class 2 may then no longer be required.

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Another possibility would be to have a requirement for Class 4 applicants to have completed an online medical education course within the past 24 calendar months, again similar to that required under the BasicMed scheme in the United States.

The fundamental provisions of the US BasicMed scheme (which lies outside the Federal Aviation Administration's medical certificate provisions) are:

- Possess a valid driver's license;
- Have held a medical certificate at any time after 15 July 2006;
- Have not had the most recently held medical certificate revoked, suspended, or withdrawn;
- Have not had the most recent application for airman medical certification completed and denied;
- Have taken a medical education course within the past 24 calendar months;
- Have completed a comprehensive medical examination within the past 48 months;
- Be under the care of a physician for certain medical conditions;
- Have been found eligible for special issuance of a medical certificate for certain specified mental health, neurological, or cardiovascular conditions;
- Consent to a National Driver Register check;
- Fly only certain small aircraft, at a limited altitude and speed, and only within the United States; and
- Not fly for compensation or hire.

CASA would not propose a scheme for a Class 4 medical certificate as extensive as BasicMed, and some provisions are already in place for the Basic Class 4, but additional elements may have additional safety benefits in confirming a pilot's continuing fitness to fly.

As the Class 4 medical certificate as outlined above would not require CASA involvement past initial issue, the prospect opens up a possibility of enabling the renewal of this level of certification to be carried out through mature self-administering organisations approved under Part 149.

A revision of the medical certification structure would present a logical sequence with decreasing levels of CASA Avmed involvement, offset by increasing conditions and restrictions:

Class 1: examined by DAME, reviewed by CASA on Class 1 medical standard; possible renewal by DAME if non-complex

Class 2: examined by DAME, reviewed by CASA only for cases of irreversible dementia, psychosis or epilepsy or by DAME request, issued on Class 2 medical standard

Class 3: examined by DAME, reviewed and issued by CASA on Class 3 medical standard for Air Traffic Controllers

Class 4: examined by DAME/or medical practitioner, issued on unconditional Austroad commercial standard

Class 5: self-declaration on Austroad private motor vehicle standard, issued by self-administering organisation or CASA, and registered by CASA

Questions for stakeholders

- **Should CASA introduce a Class 4 medical certificate combining elements of the Basic Class 4 and the RAMPC?**

- **If so, and if Austroads was adopted as a proxy standard, which level, or combination of levels, should apply to a Class 4:**

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- **Private unconditional**
- **Private conditional**
- **Commercial unconditional**
- **Commercial conditional**

- **Should a Class 4 medical have a higher point of entry such as a requirement for applicants to have held a Class 1, 2 or 3 medical certificate in the 10 years prior to application?**

- **Should there be a requirement for Class 4 applicants to have taken a medical education course within the past 24 months or be certified on entry by a DAME?**

- **Should a Class 4 certificate be introduced, what transition arrangements should be in place?**

iii)DETERMINE THE EFFECTIVENESS OF CASA DELEGATIONS TO DESIGNATED AVIATION MEDICAL EXAMINERS (DAMES) AND WHETHER THESE COULD BE EXTENDED OR IMPROVED

Part 67 enables CASA to appoint appropriately qualified persons as a DAME/ DAO (designated aviation ophthalmologist) or a Credentialed Optometrist. Currently a DAME may issue a Class 2 medical certificate to an applicant if the DAME holds a current instrument of delegation from CASA and complies with the conditions and limitations set out in the DAME Handbook. To undertake a Class 2 medical assessment the DAME must complete the Medical Assessment Report in CASA's Medical Record System (MRS) which identifies the conditions, their safety- relevance, and the certification decision.

If a DAME has any concerns about an applicant meeting the relevant medical standard, they must refer the matter to CASA for determination. Presently, only CASA may assess and issue Class 1 and Class 3 medical certificates.

CASA considers that the DAME system has worked well, and the MRS system has improved both the effectiveness and timeliness of the issue of medical certificates. In order to better standardise CASA's initial training of medical examiners, DAME applicants who have undertaken the basic course in aviation medicine will now be required to attend a new course on CASA regulation prior to designation, as a standard introduction to the roles and responsibilities of a DAME in the regulatory context.

In the context of this review of Part 67, it is appropriate to consider whether to extend the DAME delegation further and what training of DAMEs would be required should this happen.

Pilots with a Class 1 medical certificate, most likely holding Air Transport and Commercial Pilot Licences required for passenger transport must have these medical certificates re-issued annually. They are thus subject to the closest medical monitoring, both from CASA and in many cases by airline medical staff. The medical application process becomes more involved for pilots with an air transport pilot licence after they turn 60. Of the 19,938 applications for medical certificates received by CASA from January 2020 to November 2020, 73% (14,590) were for Class 1, reflecting the requirement for annual renewal of these certificates.

As pilots with serious medical issues likely to cause incapacitation are unlikely to have been able to retain a class 1 medical certificate, there seems to be no reason why pilots requiring continuation of their Class 1 medical certificate who are below the age of 60 should not be assessed by a DAME, providing the reissue continues to be without significant medical complications. In such a case, as with a Class 2 certificate, the certificate would need to be referred to CASA.

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Allowing a DAME to issue a class 1 certificate to pilots under 60 would significantly benefit a significant number of the 14,000 airline and commercial pilots required to be assessed each year. The first issue of a class 1 certificate would still need to be by CASA with subsequent re-issues able to be done by a DAME.

Another approach could be to remove the need for a delegation altogether, so that the regulation gives a DAME a direct authorisation to issue a medical certificate. This would be similar to the arrangement now applying to flight examiners who conduct flight tests under the authority of their rating, rather than as delegates of CASA.

Questions for stakeholders

- **Should CASA extend its current delegation to DAMEs to include the assessment ~~renewal~~ of non-complex Class 1 medical certificates?**
- **Are there other improvements that could be made to the system of DAME delegation?**
- **Should a revised regulation remove the need for a delegation altogether, so that DAMEs have a direct authorisation to issue a medical certificate under their authority as DAMEs?**

iv) REVIEW OTHER AREAS OF AVIATION ACTIVITY WHERE MEDICAL CERTIFICATION COULD IMPROVE SAFETY OUTCOMES

a) Remotely piloted aircraft (RPA)

ICAO has made several amendments to the Standards and Recommended Practices (SARPS) in respect of remotely piloted aircraft, to take effect from November 2022. This includes:

> *1.2.5.2.6, flight crew members, **remote flight crew members** [CASA emphasis] or air traffic controllers shall not exercise the privileges of their licence unless they hold a current Medical Assessment appropriate to the licence*.

CASA had advised ICAO that the SARP (RPAS requirement) will be adopted into Australia's legislation before November 2022.

> Australia has also advised ICAO that "*However, for RPAS SARPs, Australia intends to be compliant to Annex 1 by 3 November 2022 only to the degree required of remote pilots conducting IFR, international or airport operations. Standards consistent with present CASRs would apply to remote pilots conducting operations out of that scope."*

There are no current Australian medical standards in respect of RPA operations. The approach of the Federal Aviation Administration (FAA), is now (after an initial consideration of class 2 medical certificates for RPA operators):

> *107.17 Medical condition: No person may manipulate the flight controls of a small unmanned aircraft system or act as a remote pilot in command, visual observer, or direct participant in the operation of the small unmanned aircraft if he or she knows or has reason to know that he or she has a physical or mental condition that would interfere with the safe operation of the small unmanned aircraft system.*

The FAA guidance material includes examples of such incapacitations including loss of dexterity needed to control the aircraft, the effects of blurred vision, decreased situational awareness such that brought about by certain medications, a debilitating physical condition such as migraine and hearing or speaking impairments that may inhibit communication between those operating and observing the aircraft. Alcohol and drug limitations also apply.

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These conditions apply to small unmanned aircraft which to the FAA means an unmanned aircraft weighing less than 55 pounds on take-off, including everything that is on board or otherwise attached to the aircraft (ie less than 25k).

CASR size categories for RPA are slightly different and includes medium RPA between 25.01kg to 150kg and large RPA of more than 150kg. The operation of a large unmanned aircraft whether private or commercial operations) is only permitted with CASA approval.

A few options present themselves in respect of the medical certification of RPA operations:

(i) The operation of an RPA does not require a medical certificate (current situation).
(ii) Remote pilot licence holders and excluded category controllers be required to have some form of medical certification starting at the basic level for recreational users rising to higher certification levels (such as Class 2) for commercial operators.

(iii) The criteria applied by the FAA to small RPA operations be adopted by CASA with RPA operators self-declaring their fitness to operate the aircraft without direct medical intervention by medical examiners or CASA. Operators of large RPA to have their medical fitness assessed at the time of their seeking approval for their operation from CASA.

Given CASR Part 101 mitigates the risk of RPA operations, the third option, based on the FAA's consideration of this issue over several years would seem to provide the most reasonable outcome while preserving aviation safety. As the ICAO SARPS states that RPA crew should hold *a current Medical Assessment appropriate to the licence*, this should also ensure a broad compliance with ICAO standards.

Question for stakeholders

- **Which of the options outlined above should CASA consider in respect of the medical certification of RPA operators?**

b) other operations which may require an extension of medical certification

Under Part 61 of the CASR a flight instructor involved in flying training must hold a private, commercial or air transport pilot licence, and the relevant medical certification to enable the exercise of the privileges of their licence. An instructor in the sport and recreational aviation sector is required to hold a higher medical standard than that of recreational pilots. For example, Recreational Aviation required minimum for an instructor is a CASA Class 2 Aviation Medical Certificate or higher, or RAAus Medical Questionnaire and Examination form completed by the candidate's General Practitioner. The Gliding Federation of Australia also requires instructors to maintain their Medical Practitioner's Certificate of Fitness.

As with other forms of aviation, instructor incapacity contributing to incidents and accidents in the sport and recreational aviation sector is rare. However, given the importance of instructing as a keystone of aviation safety, it is appropriate to ask as part of a review of Part 67 whether the general practitioner endorsement of the medical status of an instructor in the sport and recreational sector is a sufficient level of medical clearance.

For example Transport Canada's category 4 medical certificate which is primarily for recreational, ultralight and glider pilots, requires glider and ultralight Instructors to provide a medical report within five years of issue or revalidation regardless of age, and for those over 40 need an ECG at first examination and every five years thereafter. However, pilot incapacitation remains an uncommon event and while instructor incapacitation does happen (as was the case at Jandakot in August 2019 where the student pilot needed to land the aircraft after the instructor became unconscious) such an occurrence is even rarer.

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Question for stakeholders

- **Should a higher level of medical certification (e.g. a CASA Class 2 medical certificate) be required for flight instructors in the sport and recreational sector?**

v) ESTABLISH WHETHER THE CURRENT STRUCTURE OF MEDICAL CERTIFICATION FOR RECREATIONAL AVIATION IS FIT FOR PURPOSE

This section needs to be considered in conjunction with section ii) above on CASA's proposed revised approach to medical certification.

The Recreational Aviation Medical Practitioner's Certificate (RAMPC) was introduced with Part 61 of the CASR in 2014 and replaced the Driver Licence Medical (Aviation). The RAMPC is based on the Austroads private motor vehicle driving standards which specify 40 disqualifying medical conditions. A further 12 additional disqualifying conditions were prescribed by CASA. Some of these additional conditions (eg heart conditions) duplicate what is also required in the Austroads standard while other provisions provide for a detailed assessment such as that required for skin cancers. The RAMPC is obtained via a detailed questionnaire examining among other matters the applicant's consumption of alcohol and sleep history.

The CASR provides that the holder of a recreational pilot licence, who meets the RAMPC requirements, may only fly an aircraft with a Maximum Take Off Weight below 1500 kg, in a single pilot aircraft, by day under the visual flight rules, at or below 10,000 feet mean sea level, with no more than 1 passenger, with ongoing examinations every 2 or 4 years depending on age.

There has been criticism since its introduction that the RAMPC was effectively the same as a Class 2 medical certificate but without the privileges of the Class 2 certificate and that the additional conditions imposed by CASA moved this certificate away from the concept of a driver's license medical and thus encouraged a greater take-up of the Recreational Pilot Certificate offered by Recreational Aviation Australia (RAAus) issued under an exemption from CASA. Subject to certain disqualifying medical conditions this certificate allows RAAus members meeting the current motor vehicle driver medical standard to fly RAAus-registered two-seat recreational aircraft up to 600kg MTOW under visual flight rules and outside controlled airspace. There are low numbers of RAMPC certificates, with CASA identifying around 138 current RAMPC holders.

The CASA discussion paper on medical certification standards released in December 2016 (https://www.casa.gov.au/files/dpmcs201612pdf) pages 18-20 provided a detailed discussion of developments in other jurisdictions of driver's license medicals and responses to this previous discussion paper cited the success of RAAus as proof of the success of self-certification.

RAAus in its submission to the 2016 discussion paper

https://www.raa.asn.au/storage/raaus-submission-casa-medical-certification-standards-discussion-paper-march-2017.pdf noted that:

> *CASA has historically taken a more risk averse approach than comparable overseas regulators (e.g. UK and US). RAAus believes this is unjustified, especially for private and recreational operations, given the significantly lower traffic and population densities in most areas of Australia compared with jurisdictions such as the UK, US and Europe (p.9)*

However RAAus also asserted that a reduction in RAMPC medical requirements could result in a potentially significant loss of revenue as the Recreational Pilots Licence

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requirements will have a direct advantage over the RAAus Pilot Certificate with the possibility that members will leave RAAus to access to controlled airspace and aircraft with increased in Maximum Take Off Weight. To CASA' s knowledge this outcome has not eventuated.

RAAus also commented that:

> *If CASA chooses to adopt a self-certification model, similar to that recently introduced in the UK, it should be fully aligned with the Austroads medical standard for private motor vehicle licensing rather than the Austroads standard serving as the starting point for a more onerous regime such as the current RAMPC (p.13).*

CASA is also aware of claims that having RAAus as the sole provider of a self- declared drivers' licence medical uses CASA's regulatory position to enforce a monopoly. This was a theme of some responses to the September 2019 CASA discussion paper on increases to maximum take-off weight for aeroplanes managed by approved self-administering aviation organisations. Comments suggested that CASA should consider a policy change to more closely integrate the two schemes (self-administration and CASA requirements).

https://consultation.casa.gov.au/regulatory-program/dp-1912ss/results/socondp1912ss.pdf

Given the success of driver's licence medicals in overseas jurisdictions, CASA could discontinue the issuing of the RAMPC and revert to providing a self-declared driver's license medical certificate for recreational pilots, with similar conditions and restrictions as those currently in place for RAAus pilot certificate holders, for example:

- Class G or Class D airspace only
- single-engine aircraft
- not more than 600 kg
- not turbine or rocket powered
- flight by day under the Visual Flight Rules only
- flight only below 10,000 feet
- no aerobatic flight
- a maximum of one passenger who must be told of the lower standard
- private operations, receiving flight training or submitting to a flight test.
- flight not operated for compensation or hire

A CASA driver's licence medical would not have the benefits associated with RAAus membership, in particular insurance coverage. Registration of recreational aircraft will still be necessary through the self-administering organisations which would also continue to issue recreational pilot certificates. CASA would simply offer an equivalent medical.

Existing RAMPC holders would be grandfathered until they transferred to other medical certificates and no new RAMPC certificates would be issued.

Class 5 medical certificate

CASA is also considering the issue of a Class 5 medical certificate - a self-declared medical against the private driver's license standard - discussed at (v) below.

A self-declared driver's licence medical certificate for recreational pilots would be regarded as a Class 5 medical certificate under the revised certification structure outlined in (ii) above.

A further option for consideration would be whether all Class 5 certificate holders should be integrated into CASA's aviation medical system at the basic level. This would require an ARN (the issue of which has been extensively streamlined) and a declaration of a pilot's Class 5 status. The advantages to such a proposal would be the inclusion of all pilots into a single record system. It would also help establish a linear career path, with many pilots

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starting at the Class 5 level and their medical certification proceeding from there, as far as their aspirations, skills and medical condition allow.

A flow-on from this proposal could be the integration of all RAAus medical certificates into CASA's medical record system, with CASA undertaking the initial issue of all Class 5 certificates based on the ARN/declaration model set out above. This would allow RAAus to manage re-issues and to focus on the operational and safety context of recreational aviation.

Questions for stakeholders

- **Should CASA cease to issue the RAMPC and instead offer a self-declared driver's license medical certificate for recreational pilots, with the same conditions and restrictions as those currently in place for RAAus pilot certificate holders?**

- **Should CASA consider conditions of entry on a self-declared driver's licence medical certificate for recreational pilots such on-line training, or certification by a DAME?**

- **If Class 5 medical certificate category is established, to what extent should CASA be involved?**

vi) CONSIDER ANY OTHER RELEVANT MATTERS

The practices and processes of CASA's Aviation Medicine Branch (Avmed) received considerable attention in the responses to the 2016 medical certification discussion paper. The issues raised were in many cases long standing including:

- pilots (particularly class 2 licence holders) sought improved consistency and transparency in decision making and delegated authority with the prime example being cases where CASA AvMed overrides decisions made by DAMEs or specialists.

- There were also suggestions that when CASA does override DAME and specialist decisions, it does so inconsistently in particular with regards to more complex cases. This is coupled with a lack of feedback on why claims were rejected.

- Lengthy turnaround times for medical certificates and various administrative requirements that have led to the experience to obtain a medical certification being viewed as slow and difficult. The process was also considered to have a detrimental effect on pilots, particularly those who need their licence for employment or other commercial purposes.

- The process for obtaining a class 2 medical certificate requires what is perceived as an excessive amount of information where the link between the information and real-life risk is unclear to the pilot.

CASA considers this position has improved significantly since 2016, due in part to efficiencies available through the Medical Records System and the availability of the Basic Class 2 medical certificate. There has also been a notable drop in complaints about Avmed processes in the past 12 months. For example taking the week of 16 March 2020 as a typical pre-COVID week the average processing time to close an application for all classes of aviation medical certificates issued was 7.6 days with the average for class 1 certificates being 5.5 days, 13.2 days for Class 2 was and, 16.4 days for class 3 In total for that week 92.4% of all applications were closed within service delivery timelines (28 days).

Avmed continues to dominate appeals to the Administrative Appeals Tribunal (the Tribunal), likely reflecting the volumes of medical certificate decisions. In 2018-2019, a refusal to issue a

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medical certificate and a certificate issued subject to conditions not sought by the applicant comprised 12 of the 16 CASA related cases lodged with the Tribunal

CASA believes that there may be a misunderstanding within the medical profession and the pilot cohort that arises from the difference between the procedures required for the treatment of a particular medical condition and an assessment of the aeromedical risk arising from that condition.

While an aeromedical risk assessment requires investigation of the medical condition itself, the medical treatment for and stability of such a condition, it also includes an assessment the effect of the condition on aviation and the likelihood of a medical event occurring that could affect aviation safety. Each of these aspects can be individually risk-managed by consideration of the likelihood (mainly clinical) and consequences (mainly operational) of an aviation event occurring. This can result in CASA adopting different approaches for similar medical conditions depending on the individual and their circumstances.

Air Transport Pilot Licence applicants aged 60 years or over undertake all routine periodic tests at the first medical undertaken at that age. This is termed the 'Major' medical. Six months later, at the second medical at that particular age, termed the 'Minor' medical, the periodic tests do not need repeating unless specific concerns are identified requiring fresh review, or there is an existing surveillance requirement. The major medical involves an ECG, blood tests, audio and eye reports and calculation of cardiac risk. If certain limits are exceeded for ECG and glucose tolerance additional tests may be required.

Complex cases may be considered by a Complex Case Management panel composed of CASA's Avmed practitioners. When appropriate, this panel may be supplemented by external clinical or other specialists, or additional advice and reviews may be required by this panel. Applicants may also request Avmed undertake a reconsideration of a decision and may also appeal to the Tribunal.

Unless affected by judicial decisions the ultimate decision as to whether and to what extent applicants for a medical certificate meets the required medical standard is the responsibility of CASA as the regulator. Annex 1 medical standards tend to take a black and white approach whereby applicants with certain medical conditions are deemed as not meeting the medical standard. However, para 1.2.4.10 of Annex 1 provides for licensing authorities to exercise their discretion ie:

> *1.2.4.10 If the medical Standards prescribed in Chapter 6 for a particular licence are not met, the appropriate Medical Assessment shall not be issued or renewed unless the following conditions are fulfilled:*
>
> *a) accredited medical conclusion indicates that in special circumstances the applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence applied for is not likely to jeopardize flight safety;*
>
> *b) relevant ability, skill and experience of the applicant and operational conditions have been given due consideration; and*
>
> *c) the licence is endorsed with any special limitation or limitations when the safe performance of the licence holder's duties is dependent on compliance with such limitation or limitations.*

Consistent with this provision CASA's approach is, where possible, not to refuse to issue a medical certificate but to undertake an aeromedical risk assessment and work with applicants to devise appropriate medical and operational risk mitigators for relevant medical conditions. For example, defined protocols exist within the CASA aviation medical framework for pilots in stable remission from the problematic use of substances to return to work. The approach is reflected in the statistics whereby for 2018-2019, CASA assessors issued nearly 20,000 medical certificates. For the same period there were just 39

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cancellations and 84 suspensions of medical certificates of all classes for medical reasons.

That said, there remains ongoing issues with the aviation community's perception of CASA processes. In part this relates to the significant workload with the CASA Avmed section. The greater involvement of DAMEs in the issue of medical certificates alleviates some of these pressures.

Question for stakeholders

- **Are there any other processes that CASA could consider to improve interactions between Avmed and the aviation community?**

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Attachment A

Revised tables

Note 1: Wording deleted or moved has replacement text in italics. Items changed in Table1 have the same items changed in Tables 2 and 3.

Note 2: It is proposed that the term 'safety relevant' be replaced by 'of aeromedical significance'. In medical terms this is a more precise definition, focusing attention on medical conditions that may affect aviation safety and are the proper focus of aviation medicine, and differentiating this practice from conditions of medical significance which may affect the health of an individual and are the proper provenance of the treating doctor. . 'Aeromedical significance' aligns with the terminology of the New Zealand Part 67 regulation.

However, 'safety relevance' has the advantage of being familiar to DAMEs from long usage and a substantial body of decision making and precedent setting by tribunals on the meaning of the current Part 67 could be lost if the concept changes.

(1) A person who satisfies the criteria in table 1 meets the medical standard 1.

Table 1 Criteria for medical standard 1

Item	Criterion
Abnormalities, disabilities and functional capacity	
1.1	Has no ~~safety-relevant~~ *condition of aeromedical significance* of any of the following kinds that produces any degree of functional incapacity or a risk of incapacitation: (a) an abnormality; (b) a disability or disease (active or latent); (c) an injury; (d) a sequela of an accident or a surgical operation
1.2	Has no physical conditions or limitations that are ~~safety-relevant~~ *of aeromedical significance*
1.3	Is not using any over-the-counter or prescribed medication or drug (including medication or a drug used to treat a disease or medical disorder) that causes the person to experience any side effects likely to affect the person to an extent that is ~~safety-relevant~~ *of aeromedical significance*
Mental fitness	
1.4	Has no established medical history or clinical diagnosis of any of the following conditions, to an extent that is ~~safety-relevant~~ *of aeromedical significance*: (a) psychosis; (b) significant personality disorder; (c) significant mental abnormality or neurosis
1.5	Does not ~~engage in~~ suffer from *any substance use disorder* ~~problematic use of substances~~ (~~within the meaning given by section 1.1 of Annex 1, *Personnel Licensing*, to the Chicago Convention~~) ~~that being~~ so that the use of one or more psychoactive substances by aviation personnel in a way that constitutes a direct hazard to the user or endangers the lives, health or welfare of others; and/or causes or worsens an occupational, social, mental or physical problem or disorder. Psychoactive substances are defined in Annex 1 as alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents and excludes coffee and tobacco.
1.6	Unless there is any personal history of ~~problematic use of a substance~~ *substance use disorder* as defined in 1.5 and: (a) the person's ~~abstinence from problematic use of the substance~~ *treatment for substance use disorder* is certified by an appropriate specialist medical practitioner; and (b) the person is not suffering from any safety-relevant sequelae ~~resulting from use of the substance;~~ and (c) the person provides evidence that they have successfully completed, an appropriate course of ~~therapy~~ *treatment*
Nervous system	

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1.7	Has no established medical history or clinical diagnosis of: (a) a ~~safety-relevant~~ disease of the nervous system *of aeromedical significance*; or (b) epilepsy; or (c) a disturbance of consciousness for which there is no satisfactory medical explanation, and which may recur

Item	Criterion
1.8	Is not suffering from ~~safety-relevant~~ effects of a head injury or neurosurgical procedure *of aeromedical significance*
Cardiovascular system	
1.9	Has no ~~safety-relevant~~ heart abnormality *of aeromedical significance*
1.10	Systolic and diastolic blood pressures are within limits specified by CASA from ~~time to time in the Designated Aviation Medical Examiner's Handbook (even if approved drugs are used to maintain the blood pressure within those limit~~s) *in its medical guidelines*
1.11	Has no significant functional or structural abnormality of the circulatory tree
Respiratory system	
1.12	Is not suffering from a ~~safety-relevant~~ condition of the respiratory system *of aeromedical significance*
1.13	Has full and free respiratory function without the use of drugs ~~that act on the respiratory organs~~ (other than drugs approved by CASA) *Advice to be included in medical guidelines*
Alimentary system and metabolic disorders	
1.14	Is not suffering from any ~~safety-relevant~~ defect of the digestive system or its adnexae, nor from any safety-relevant effect of disease or trauma of, or an operation on, the digestive system or its adnexae *which is of aeromedical significance*
1.15	Is not suffering from any ~~safety-relevant~~ metabolic, nutritional or endocrine disorders *of aeromedical significance*
1.16	If suffering from diabetes mellitus—the diabetes is satisfactorily controlled ~~without the use of any anti-diabetic drug~~ *by medically approved means compatible with the safe exercise of the applicant's licence and rating privileges*
Reticulo-endothelial system	
1.17	Is not suffering from an enlargement of the spleen that causes a significant displacement below the costal margin
1.18	Is not suffering from a ~~safety-relevant~~ condition *of aeromedical significance* of any of the following kinds: (a) localised or generalised enlargement of the lymphatic nodes; (b) a disease of the blood; (c) an immune deficiency disorder
Genito-urinary system	
1.19	Is not suffering from any ~~safety-relevant~~ disease of the genito-urinary system *of aeromedical significance*
1.20	Has no ~~safety-relevant~~ sequelae of disease or surgical procedures on the kidneys or urinary tract *of aeromedical significance*
1.21	Kidneys and urinary tract are free of significant obstructions
~~1.22~~	~~If there is any personal history of syphilis—provides evidence that adequate treatment has been completed and that there are no safety-relevant sequelae of the infection~~ *Moved to medical guidelines*
Gynaecological and obstetrical	
1.22	Does not suffer from ~~safety-relevant menstrual disturbances~~ *gynaecological disorder* that is *of aeromedical significance*
1.23	If pregnant—the pregnancy is not likely to interfere with the safe exercise of privileges, or performance of duties, ~~under the licence held or applied for Note: See regulation 67.235 regarding the periods during which a pregnant woman must not exercise the privileges of a licence~~ *Moved to medical guidelines*
Skeletal system	
1.24	Is not suffering from ~~safety-relevant~~ active disease of the bones, joints, muscles or tendons *of aeromedical significance* c
1.25	Is not suffering from ~~safety-relevant~~ functional sequelae of medically significant conditions of the bones, joints, muscles or tendons *of aeromedical significance* c
Ear, nose and throat	

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Item	Criterion
1.26	Is not suffering from: (a) active pathological processes of the internal ear or of the middle ear; or (b) permanent obstructions of the Eustachian tubes; or (c) permanent disturbances of the vestibular apparatus
1.27	Has no ~~safety-relevant~~ condition of the buccal cavity or the upper respiratory tract *of aeromedical significance*
Hearing requirements	
1.28	Is not suffering from any ~~safety-relevant~~ hearing defect *of aeromedical significance*
1.29	If suffering from a hearing loss (measured in a quiet room using a properly calibrated, compensated audiometer) in either ear of more than: (a) 35 dB at any of the frequencies of 500 Hz, 1 000 Hz or 2 000 Hz; or (b) 50 dB at 3 000 Hz— the person passes a speech discrimination test, or an operational check, carried out by an approved person in an aircraft of similar ambient noise level to that in which the person being tested is or will be operationally involved
Visual requirements	
1.30	Eyes and their adnexae function normally
1.31	Is not suffering from any ~~safety-relevant~~ pathological condition (either acute or chronic), nor any sequelae of surgery or trauma *of aeromedical significance*
1.32	Has normal fields of vision
1.33	Has normal binocular vision
1.34	Has a distant visual acuity of 6/9 or better in each eye separately and 6/6 or better binocular (with or without correcting lenses)
1.35	Can read (with or without correcting lenses) an N5 chart (or its equivalent) binocularly at a distance that he or she selects (in the range of 30 to 50 centimetres), and can read an N14 chart binocularly (with or without correcting lenses) at a distance of 1 metre and if needing correcting lenses have the appropriate lenses available while carrying out duties under a relevant licence—~~see regulation 67.200~~.
1.37	~~Has a near point of accommodation no further away than 30 centimetres (with or without correcting lenses~~) *Deleted as inconsistent with ICAO Annex 1 SARPs*
1.36	If using contact lenses to meet the visual standards set out in items 1.31 to 1.37: (a) is able to wear those lenses for twice the projected length of flight time or duty time for the person without deterioration in visual acuity or discomfort; and (b) if the lenses are of the hard or gas-permeable variety, demonstrates the ability, immediately after removing the lenses, to read at least 6/9 with spectacles binocularly
Colour perception	
1.39	Can readily distinguish the colours that need to be distinguished for the safe exercise of privileges, or performance of duties, under the relevant licence, A person must demonstrate that he or she meets the criterion in item 1.39 by: (a) in daylight, or artificial light of similar luminosity, readily identifying a series of pseudo-isochromatic plates of the Ishihara 24-plate type, making no more than 2 errors; or (b) for somebody who makes more than 2 errors in a test mentioned in paragraph (a), readily identifying aviation coloured lights displayed by means of a Farnsworth colour-perception lantern, making: (i) no errors on 1 run of 9 pairs of lights; or (ii) no more than 2 errors on a sequence of 2 runs of 9 pairs of lights; or (c) for somebody who does not satisfy paragraph (a) or (b), correctly identifies the functions of all relevant coloured lights in a test, determined by CASA, such as the CAD test or a recognised operational test. ~~Note: For how to demonstrate this, see subregulation 67.150(6).~~

~~67.155 Who meets medical standard 2~~

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Note 1: Wording deleted or moved has replacement text in italics. Items changed in Table1 have the same items changed in Tables 2 and 3.

Note 2: The term 'safety relevant' has been replaced in the Table by 'of aeromedical significance' . See discussion in Note 2 for Table 1 above.

Note 3: If a change is made to a criterion in an item of table 67.155, a person who held a class 2 medical certificate and satisfied the criterion immediately before the change, but fails to satisfy the criterion as changed, is taken to satisfy the criterion for 2 years after the day when the change is made.

(1) A person who satisfies the criteria in table 2 meets the medical standard 2.

~~(2) A person may use contact lenses to meet the criterion in item 2.35 of table 67.155 if the lenses are monofocal and not tinted and are well tolerated.~~

~~(3) A person whose visual acuity in either eye is worse than 6/60 must provide a full ophthalmic report to CASA (4) A person who has undergone surgery affecting the refractive status of either eye is taken not to meet the criterion in item 2.35 of table 67.155 until he or she is free of safety-relevant sequelae of the surgery.~~

~~(5) A person who requires both near correction and distant correction to meet the criteria in items 2.35 and 2.36 of table 67.155 must demonstrate that 1 pair of spectacles is sufficient to meet both requirements for correction.~~

~~(6) A person must demonstrate that he or she meets the criterion in item 2.39 of table 67.155 by:~~

~~(a) in daylight, or artificial light of similar luminosity, readily identifying a series of pseudo-isochromatic plates of the Ishihara 24-plate type, making no more than 2 errors; or~~

~~(b) for somebody who makes more than 2 errors in a test mentioned in paragraph (a), readily identifying aviation coloured lights displayed by means of a Farnsworth colour-perception lantern, making:~~

~~(i) no errors on 1 run of 9 pairs of lights; or~~

~~(ii) no more than 2 errors on a sequence of 2 runs of 9 pairs of lights; or~~

~~(c) for somebody who does not satisfy paragraph (a) or (b), correctly identifying all relevant coloured lights in a test, determined by CASA, that simulates an operational situation.~~

~~(7) If a change is made to a criterion in an item of table 67.155, a person who held a class 2 medical certificate and satisfied the criterion immediately before the change, but fails to satisfy the criterion as changed, is taken to satisfy the criterion for 2 years after the day when the change is made.~~

Table 2 Criteria for medical standard 2

Item	Criterion
Abnormalities, disabilities and functional capacity	
2.1	Has no ~~safety-relevant~~ *condition of aeromedical significance* any of the following kinds that produces any degree of functional incapacity or a risk of incapacitation: (a) an abnormality; (b) a disability or disease (active or latent); (c) an injury; (d) a sequela of an accident or a surgical operation
2.2	Has no physical conditions or limitations that are *of aeromedical significance* ~~safety-relevant~~

2.3	Is not using any over-the-counter or prescribed medication or drug (including medication or a drug used to treat a disease or medical disorder) that causes the person to experience any side effects likely to affect the person to an extent that is ~~safety-relevant~~ *of aeromedical significance*
Mental fitness	
2.4	Has no established medical history or clinical diagnosis of any of the following conditions, to an extent that is ~~safety-relevant~~ *of aeromedical significance*: (a) psychosis; (b) significant personality disorder; (c) significant mental abnormality or neurosis

Item	Criterion
2.5	Does not suffer from *any substance use disorder* ~~engage in any problematic use of substances (within the meaning given by section 1.1 of Annex 1, *Personnel Licensing*, to the Chicago Convention) that being~~ so that the use of one or more psychoactive substances by aviation personnel in a way that constitutes a direct hazard to the user or endangers the lives, health or welfare of others; and/or causes or worsens an occupational, social, mental or physical problem or disorder. Psychoactive substances are defined in Annex 1 as alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents and excludes coffee and tobacco.
2.6	Unless there is any personal history *of substance use disorder* ~~problematic use of a substance~~ as defined in 2.5 and: (a) the person's treatment for *substance use disorder* ~~abstinence from problematic use of the substance~~ is certified by an appropriate specialist medical practitioner; and (b) the person is not suffering from any safety-relevant sequelae ~~resulting from use of the substance~~; and (c) the person provides evidence that they are undertaking, or has successfully completed, an appropriate course of ~~therapy~~ treatment
Nervous system	
2.7	Has no established medical history or clinical diagnosis of: (a) a ~~safety-relevant~~ disease of the nervous system *of aeromedical significance*; or (b) epilepsy; or (c) a disturbance of consciousness for which there is no satisfactory medical explanation, and which may recur
2.8	Is not suffering from ~~safety-relevant~~ effects of a head injury or neurosurgical procedure *of aeromedical significance*
Cardiovascular system	
2.9	Has no ~~safety-relevant~~ heart abnormality *of aeromedical significance*
2.10	Systolic and diastolic blood pressures are within limits specified by CASA ~~from time to time in the Designated Aviation Medical Examiner's Handbook (even if approved drugs are used to maintain the blood pressure within those limits)~~ *in its medical guidelines*
2.11	Has no significant functional or structural abnormality of the circulatory tree
Respiratory system	
2.12	Is not suffering from a ~~safety-relevant~~ condition of the respiratory system *of aeromedical significance*
Alimentary system and metabolic disorders	
2.13	Is not suffering from a ~~safety-relevant~~ defect of the digestive system or its adnexae, nor from any safety-relevant effect of disease or trauma of, or an operation on, the digestive system or its adnexae *of aeromedical significance*
2.14	Is not suffering from ~~safety-relevant~~ metabolic, nutritional or endocrine disorders *of aeromedical significance*
2.15	If suffering from diabetes mellitus, the condition is satisfactorily controlled medically approved means without ~~the use of any anti-diabetic drug; or~~ ~~(b) if an oral anti-diabetic drug is used to control the condition:~~ ~~(i) the condition is under on-going medical supervision and control; and~~ ~~*(ii)* the oral drug is approved by CASA~~ *Details of acceptable controls included in medical guidelines*
Reticulo-endothelial system	
2.16	Is not suffering from an enlargement of the spleen that causes a significant displacement below the costal margin
2.17	Is not suffering from a ~~safety-relevant~~ condition of any of the following kinds *of aeromedical significance*:

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(a) localised or generalised enlargement of the lymphatic nodes;
(b) a disease of the blood;
(c) an immune deficiency disorder

Item	Criterion
Genito-urinary system	
2.18	Is not suffering from any ~~safety-relevant~~ disease of the genitor-urinary system *of aeromedical significance*
2.19	Has no ~~safety-relevant~~ sequelae of disease or surgical procedures on the kidneys or urinary tract *of aeromedical significance*
2.20	Kidneys and urinary tract are free of significant obstructions
~~2.21~~	~~If there is any personal history of syphilis—provides evidence that adequate treatment has been completed and that there are no safety-relevant sequelae of the infection~~
Gynaecological and obstetrical	
2.21	Does not suffer from ~~safety-relevant~~ *gynaecological disorders of aeromedical significance* ~~menstrual disturbances~~
2.22	If pregnant—the pregnancy is not likely to interfere with the safe exercise of privileges, or performance of duties, ~~under the licence held or applied for~~ ~~Note: See regulation 67.235 regarding the periods during which a pregnant woman must not exercise the privileges of a licence~~.
Skeletal system	
2.23	Is not suffering from ~~safety-relevant~~ active disease of the bones, joints, muscles or tendons *of aeromedical significance*
2.24	Is not suffering from ~~safety-relevant~~ functional sequelae of medically significant conditions of the bones, joints, muscles or tendons *of aeromedical significance*
Ear, nose and throat	
2.25	Is not suffering from: (a) active pathological processes of the internal ear or of the middle ear; or (b) permanent obstructions of the Eustachian tubes; or (c) permanent disturbances of the vestibular apparatus
2.26	Has no ~~safety-relevant~~ condition of the buccal cavity or the upper respiratory tract *of aeromedical significance*
Hearing	
2.27	Is not suffering from any ~~safety-relevant~~ hearing defect *of aeromedical significance*
2.28	With or without a hearing aid, is able to hear with both ears an average conversational voice in a quiet room while at a distance of 2 metres from the examiner, and looking away from the examiner
2.29	For a person ~~somebody~~ who fails to meet the standard in item 2.29, passes an operational check by an approved person in an aircraft having a similar ambient noise level to that in which the person is or will be operationally involved
Visual requirements	
2.30	Eyes and their adnexae function normally
2.31	Is not suffering from any ~~safety-relevant~~ pathological condition (either acute or chronic), nor any sequelae of surgery or trauma *of aeromedical significance*
2.32	Has normal fields of vision
2.33	Has normal binocular vision
2.35	Has a distant visual acuity of 6/12 or better in each eye separately and 6/9 or better binocular (with or without correcting lenses)
2.36	Can read (with or without correcting lenses) an N5 chart (or its equivalent) binocularly at a distance that he or she selects (in the range of 30 to 50 centimetres), and can read an N14 chart binocularly (with or without correcting lenses) at a distance of 1 metre and, if needing correcting lenses, have the appropriate lenses available while carrying out duties under a relevant licence. ~~Note: A person who needs correcting lenses to meet this criterion must have the appropriate lenses available while carrying out duties under a relevant licence—see regulation 67.200~~.
~~2.37~~	~~Has a near point of accommodation no further away than 30 centimetres (with or without correcting lenses)~~
2.38	(1) If using contact lenses to meet the visual standards set out in items 2.31 to 2.37: (a) is able to wear those lenses for twice the projected length of flight time or duty time for the person without deterioration in visual acuity or discomfort; and

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Item	Criterion
	(b) if the lenses are of the hard or gas-permeable variety, demonstrates the ability, immediately after removing the lenses, to read at least 6/9 with spectacles binocularly (2) A person may use contact lenses to meet the criterion in item 2.35 of table 67.155 if the lenses are monofocal and not tinted and are well tolerated. (3) A person whose visual acuity in either eye is worse than 6/60 must provide a full ophthalmic report to CASA. (4) A person who has undergone surgery affecting the refractive status of either eye is taken not to meet the criterion in item 2.35 of table 67.155 until he or she is free of safety-relevant sequelae of the surgery. (5) A person who requires both near correction and distant correction to meet the criteria in items 2.35 and 2.36 of table 67.155 must demonstrate that 1 pair of spectacles is sufficient to meet both requirements for correction.
Colour perception	
2.39	Can readily distinguish the colours that need to be distinguished for the safe exercise of privileges, or performance of duties, under the relevant licence ~~Note:~~ A person must demonstrate that he or she meets the criterion in item 2.39 of table 67.155 by: (a) in daylight, or artificial light of similar luminosity, readily identifying a series of pseudo-isochromatic plates of the Ishihara 24-plate type, making no more than 2 errors; or (b) for somebody who makes more than 2 errors in a test mentioned in paragraph (a), readily identifying aviation coloured lights displayed by means of a Farnsworth colour-perception lantern, making: (i) no errors on 1 run of 9 pairs of lights; or (ii) no more than 2 errors on a sequence of 2 runs of 9 pairs of lights; or (c) for somebody who does not satisfy paragraph (a) or (b), correctly identifies the functions of all relevant coloured lights in a test, determined by CASA, such as the CAD test or a recognised operational test. ~~For how to demonstrate this, see subregulation 67.155(6).~~

Table 3 Criteria for medical standard 3

Note 1: Wording deleted or moved has replacement text in italics. Items changed in Table1 have the same items changed in Tables 2 and 3.

Note 2: The term ‘safety relevant’ has been replaced in the Table by ‘of aeromedical significance’ . See discussion in Note 2 for Table 1 above.

Note 3: If a change is made to a criterion in an item of table 67.160, a person who held a class 3 medical certificate and satisfied the criterion immediately before the change, but fails to satisfy the criterion as changed, is taken to satisfy the criterion for 2 years after the day when the change is made.

~~7.160 Who meets medical standard 3~~

(1) A person who satisfies the criteria in table 3 meets the medical standard 3.

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~~(2) A person may use contact lenses to meet the criterion in item 3.33 of table 67.160 if the lenses are monofocal and not tinted and are well tolerated.~~

~~(3) A person whose visual acuity in either eye is worse than 6/60 must provide a full ophthalmic report to CASA.~~

~~(4) A person who has undergone surgery affecting the refractive status of either eye is taken not to meet the criterion in item 3.33 of table 67.160 until he or she is free of safety-relevant sequelae of the surgery.~~

~~(5) A person who requires both near correction and distant correction to meet the criteria in items 3.33 and 3.34 of table 67.160 must demonstrate that 1 pair of spectacles is sufficient to meet both requirements for correction.~~

~~(6) If a person applies for a class 3 medical certificate, the person must demonstrate that he or she meets the criterion in item 3.37 of table 67.160 by, in daylight, or artificial light of similar luminosity, readily identifying a series of pseudo-isochromatic plates of the Ishihara 24-plate type, making no more than 2 errors.~~

~~(7) If a change is made to a criterion in an item of table 67.160, a person who held a class 3 medical certificate and satisfied the criterion immediately before the change, but fails to satisfy the criterion as changed, is taken to satisfy the criterion for 2 years after the day when the change is made.~~

Item	Criterion
Abnormalities, disabilities and functional capacity	
3.1	Has no ~~safety-relevant~~ *condition of aeromedical significance* any of the following kinds that produces any degree of functional incapacity, or risk of incapacitation: (a) an abnormality; (b) a disability or disease (active or latent); (c) an injury; (d) a sequela of an accident or a surgical operation
3.2	Has no physical conditions or limitations that are *of aeromedical significance* ~~safety-relevant~~
Item	Criterion
3.3	Is not using any over-the-counter or prescribed medication or drug (including medication or a drug used to treat a disease or medical disorder) that causes the person to experience any side effects likely to affect the person to an extent that is ~~safety-relevant~~ of *aeromedical significance*.
Mental fitness	
3.4	Has no established medical history or clinical diagnosis of any of the following conditions, to an extent that is ~~safety-relevant~~ *of aeromedical significance*: (a) psychosis; (b) significant personality disorder; (c) significant mental abnormality or neurosis
3.5	does not suffer from *substance use disorder* ~~engage in any problematic use of substances (within the meaning given by section 1.1 of Annex 1, *Personnel Licensing*, to the Chicago Convention that being~~ so that: The use of one or more psychoactive substances by aviation personnel in a way that: a) constitutes a direct hazard to the user or endangers the lives, health or welfare of others; and/or b) causes or worsens an occupational, social, mental or physical problem or disorder. ~~Psychoactive substances' is there defined as alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents and excludes coffee and tobacco~~
3.6	Unless there is any personal history *of treatment for substance use disorder* ~~problematic use of a substance~~ as defined in 2.5 and: (a) the person's treatment for *substance use disorder* ~~abstinence from problematic use of the substance~~ is certified by an appropriate specialist medical practitioner; and (b) the person is not suffering from any safety-relevant sequelae ~~resulting from use of the substance;~~ and *(c)* the person provides evidence that they are undertaking, or has successfully completed, *an appropriate course of treatment*
Nervous system	
3.7	Has no established medical history or clinical diagnosis of: (a) a ~~safety-relevant~~ disease of the nervous system *of aeromedical significance*; or (b) epilepsy; or

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	(c) a disturbance of consciousness for which there is no satisfactory medical explanation, and which may recur
3.8	Is not suffering from ~~safety-relevant~~ effects of a head injury or neurosurgical procedure *of aeromedical significance*
Cardiovascular system	
3.9	Has no ~~safety-relevant~~ heart abnormality *of aeromedical significance*
3.10	Systolic and diastolic blood pressures are within limits specified by CASA ~~from time to time in the Designated Aviation Medical Examiner's Handbook (even if approved drugs are used to maintain the blood pressure within those limits)~~
3.11	Has no significant functional or structural abnormality of the circulatory tree
Respiratory system	
3.12	Is not suffering from a ~~safety-relevant~~ condition of the respiratory system *of aeromedical significance*
Alimentary system and metabolic disorders	
3.13	Is not suffering from a ~~safety-relevant~~ defect of the digestive system or its adnexae, nor from any ~~safety-relevant~~ effect of disease or trauma of, or an operation on, the digestive system or its adnexae *which is of aeromedical significance*
3.14	Is not suffering from ~~safety-relevant~~ metabolic, nutritional or endocrine disorders *of aeromedical significance*

Item	Criterion
3.15	If suffering from diabetes mellitus: the condition is satisfactorily controlled by medically approved means ~~without the use of any anti-diabetic drug; or~~ ~~(b) if an oral anti-diabetic drug is used to control the condition:~~ ~~(i) the condition is under on-going medical supervision and control; and~~ ~~(ii) the oral drug is approved by CASA~~
Reticulo-endothelial system	
3.16	Is not suffering from a ~~safety-relevant~~ condition of any of the following kinds *of aeromedical significance*: (a) localised or generalised enlargement of the lymphatic nodes; (b) a disease of the blood; (c) an immune deficiency disorder
Genito-urinary system	
3.17	Is not suffering from any ~~safety-relevant~~ disease of the genito-urinary system *of aeromedical significance*
3.18	Has no sequelae of disease or surgical procedures on the kidneys or urinary tract
3.19	Kidneys and urinary tract are free of significant obstructions
~~3.20~~	~~If there is any personal history of syphilis—provides evidence that adequate treatment has been completed and that there are no safety-relevant sequelae of the infection~~
Gynaecological and obstetrical	
3.20	Does not suffer from ~~safety-relevant menstrual disturbances~~ *gynaecological disorders of aeromedical significance*
3.21	If pregnant—the pregnancy is not likely to interfere with the safe exercise of privileges, or performance of duties, ~~under the licence held or applied for~~ ~~Note: See regulation 67.235 regarding the periods during which a pregnant woman must not exercise the privileges of a licence.~~
Skeletal system	
3.22	Is not suffering from ~~safety-relevant~~ active disease of the bones, joints, muscles or tendons *of aeromedical significance*
3.23	Is not suffering from ~~safety-relevant~~ functional sequelae of medically significant conditions of the bones, joints, muscles or tendons *of aeromedical significance*
Ear, nose and throat	
3.24	Is not suffering from: (a) active pathological processes of the internal ear or of the middle ear; or (b) permanent disturbances of the vestibular apparatus
3.25	Has no ~~safety-relevant~~ condition of the buccal cavity or the upper respiratory tract *of aeromedical significance*
Hearing requirements	
3.26	Is not suffering from any ~~safety-relevant~~ hearing defect *of aeromedical significance*

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3.27	If suffering from a hearing loss (measured in a quiet room using a properly calibrated, compensated audiometer) in either ear of more than: (a) 35 dB at any of the frequencies of 500 Hz, 1 000 Hz or 2 000 Hz; or (b) 50 dB at 3 000 Hz— passes a speech discrimination test, or an operational check, carried out by an approved person
Visual requirements	
3.29	Eyes and their adnexae function normally
3.30	Is not suffering from any ~~safety-relevant~~ pathological condition (either acute or chronic), nor any sequelae of surgery or trauma *of aeromedical significance*
3.31	Has normal binocular vision
3.32	Has normal fields of vision
3.33	Has a distant visual acuity of 6/9 or better in each eye separately and 6/6 or better binocular (with or without correcting lenses)

Item	Criterion
3.34	Can read (with or without correcting lenses) an N5 chart (or its equivalent) binocularly at a distance that he or she selects (in the range of 30 to 50 centimetres), and can read an N14 chart binocularly (with or without correcting lenses) at a distance of 1 metre and, if needing correcting lenses, have the appropriate lenses available while carrying out duties under a relevant licence ~~Note: A person who needs correcting lenses to meet this criterion must have the appropriate lenses available while carrying out duties under a relevant licence—see regulation 67.200~~.
~~3.35~~	~~Has a near point of accommodation no further away than 30 centimetres (with or without correcting lenses)~~
3.35	1) If using contact lenses to meet the visual standards set out in items 3.29 to 3.35: (a) is able to wear those lenses for twice the projected length of duty time for the person without deterioration in visual acuity or discomfort; and (b) if the lenses are of the hard or gas-permeable variety, demonstrates the ability, immediately after removing the lenses, to read at least 6/9 with spectacles binocularly 2) A person may use contact lenses to meet the criterion in item 3.33 of table 67.160 if the lenses are monofocal and not tinted and are well tolerated. (3) A person whose visual acuity in either eye is worse than 6/60 must provide a full ophthalmic report to CASA. 4) A person who has undergone surgery affecting the refractive status of either eye is taken not to meet the criterion in item 3.33 of table 67.160 until he or she is free of safety-relevant sequelae of the surgery. (5) A person who requires both near correction and distant correction to meet the criteria in items 3.33 and 3.34 of table 67.160 must demonstrate that 1 pair of spectacles is sufficient to meet both requirements for correction.
Colour perception	
3.36	Can readily distinguish the colours that need to be distinguished for the safe exercise of privileges, or performance of duties~~, under the relevant licence~~ A person must demonstrate that he or she meets the criterion in item 3.362 by: (a) in daylight, or artificial light of similar luminosity, readily identifying a series of pseudo-isochromatic plates of the Ishihara 24-plate type, making no more than 2 errors; or (b) for somebody who makes more than 2 errors in a test mentioned in paragraph (a), readily identifying aviation coloured lights displayed by means of a Farnsworth colour-perception lantern, making: (i) no errors on 1 run of 9 pairs of lights; or (ii) no more than 2 errors on a sequence of 2 runs of 9 pairs of lights; or c) for somebody who does not satisfy paragraph (a) or (b), correctly identifies the functions of all relevant coloured lights in a test, determined by CASA.

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d) ~~Note: For how to demonstrate this, see subregulation 67.160(6)~~

Table 4: Criteria for medical standard 4

(1) A person meets medical standard 4 if the person meets the unconditional commercial driver's licence under the Austroads medical standards (other than needing glasses and hearing aids).

Table 5: Criteria for medical standard 5

(1) A person meets the medical standard 5 if the person meets the private driver's licence under the Austroads medical standards.

(2) Evidence of fitness to meet the Austroads medical standards for a private driver's licence must be provided to CASA or to the relevant approved self-administering organisation.

(3) Persons over 75 years of age or have a known medical condition as listed below must provide confirmation of their health standard by a medical practitioner by an annual examination and a written statement provided by that medical practitioner to CASA or to the relevant approved self-administering organisation.

- epilepsy
- diabetes (Type 1 or 2)
- heart condition/disease or paralysis
- mental illness
- aged75 years or over

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CASA through CASR Part 149.

- CASA confirmed that ASAOs will continue to manage their assessments of self-declared medicals via their operations manuals through Part 149. The audit, compliance and oversight role of CASA for Part 149 organisations includes all elements of the ASAO's operations, which extends to the processes used by the ASAO for medical assessments and standards . CASA Avmed will work with the ASAOs to support their medical assessment processes to be safely and effectively managed under part 149, and for ASAOs to continue to be independent from the medical certification requirements for Part 67. Further advice will also be sought from CASA Sport and Recreation Aviation Branch.

- The TWG were supportive of introducing a Class 5 self-declared medical for VH-registered aircraft. The TWG discussed that the certification will be based on a particular standard, potentially the Austroads private motor vehicle driving standards. It was also noted that if the individual did not meet certain criteria, they will need a doctor to assess and issue the certificate and that CASA will need to provide guidance to support. CASA will also have an oversight and audit capability. They TWG also supported allowing ASAOs to continue to manage their medical certification processes and if CASA allows them to recognise the Class 5 certificate, then this should be reciprocated as they are likely to be equivalent standards.

Topic 6: Consider any other relevant matters.

- CASA advised on some of the other work and engagement conducted by Aviation Medicine, such as holding clinical case conferences to strengthen engagement and transparency in medical decision-making. Avmed will also be conducting regional engagement and have regular slots at FlySafe events around the country.

- CASA also advised that they are looking at medical certification harmonisation with New Zealand.

- The TWG discussed the benefits in having the PMO conducting regular engagement with aviation associations, organisations and pilot groups.

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Australian Government
Civil Aviation Safety Authority

POLICY PROPOSAL
PP 2302FS

Policy proposal for a new aviation medical self-declaration

Date	October 2023
Project number	FS 04/01
File ref	D23/461700

Overview

Part 67 of the *Civil Aviation Safety Regulations 1998* (CASR) sets out the requirements relating to medical certification and the requirements for designated aviation medical examiners and designated aviation ophthalmologists that undertake medical assessments.

Over the past two decades, multiple stakeholders and participants in the Australian aviation community have expressed the value of a self-declared medical scheme. A key initiative of CASA's Part 67 reform workplan is delivering an accessible and simplified medical certificate model for the recreational aviation community.

Various approaches to modernising the aviation medical scheme have attempted to provide an accessible, simplified, and safe aviation medical certificate. These include the Recreational Aviation Medical Practitioner Certificate (RAMPC) and the Basic Class 2 medical certificate.

The proposed scheme, namely Class 5 medical self-declaration, is an alternative to the current Basic Class 2 and RAMPC medical certificates in terms of not requiring review by an aviation medical examiner. However, it is different as it permits greater flexibility in the presence of medical conditions and does not mandate a review by a medical practitioner. It is intended that the Class 5 medical self-declaration will replace the RAMPC once there is an opportunity to amend the relevant parts of CASR. Appendix A of this policy proposal (PP) provides a comparison table of the proposed Class 5 medical self-declaration with other recreational aviation medical certificates.

The proposed Class 5 medical self-declaration aims to ensure that safety risks are managed appropriately without requiring a medical assessment by a medical professional as part of the application process, or scrutiny of individual certificates by CASA aviation medicine specialists.

The acceptable levels of risk associated with the self-declaration certification scheme will be managed through operational limitations, medical limitations, and self-declared medical assurances.

The proposed Class 5 medical self-declaration will include:

a. A self-assessment and self-declaration process for the automatic issuance of a Class 5 medical self-declaration, completed entirely online.
b. Medical limitations that exclude pilots with certain conditions from the Class 5 medical self-declaration.
c. Operational limitations, that include but are not limited to, the size of aircraft used, and the kinds of operations performed.
d. The provision of comprehensive guidance material for applicants, certificate-holders and their healthcare practitioners, regarding aeromedical risk assessment for states of health and diseases.

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Why are we consulting?

CASA is seeking your feedback to determine whether this PP for an aviation medical self-declaration scheme meets the needs of the recreational aviation community while retaining an acceptable level of aviation safety.

This consultation is relevant to all pilots, key aviation stakeholder organisations, flight training operators/flight instructors, and medical professionals. This is an opportunity to provide industry sector insights and feedback based on current needs and challenges.

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Contents

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1 Reference material

1.1 Acronyms

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

Acronym	Description
A-LOC	almost loss of consciousness
AME	Aviation Medical Examiner
ATSB	Australian Transport Safety Bureau
AvMed	Aviation Medicine
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulations 1998
CTA	controlled airspace
DAME	Designated Aviation Medical Examiner
DVLA	Driver and Vehicle Licensing Agency
G-LOC	G induced loss of consciousness
G	G-force
GP	General Practitioner
ICAO	International Civil Aviation Organization
LAPL	Light Aircraft Pilot Licence
MOS	Manual of Standards
MP	Medical Practitioner
MRS	Medical Records System
OCTA	outside of controlled airspace
PMD	Pilot Medical Declaration
PP	policy proposal
PPL	Private Pilot's Licence
RAMPC	Recreational Aviation Medical Practitioners Certificate
RPL	Recreational Pilot's Licence
SAB	sport aviation body
SARP	Standards and Recommended Practices
SD	spatial disorientation
SGP	Specialist General Practitioner
TWG	Technical Working Group
UK PMD	United Kingdom Pilot Medical Declaration

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1.2 Definitions

Terms that have specific meaning within this PP are defined in the table below. Where definitions from the civil aviation legislation have been reproduced for ease of reference, these are identified by 'grey shading'. Should there be a discrepancy between a definition given in this PP and the civil aviation legislation, the definition in the legislation prevails.

Term	Definition
guidelines	means the Guidelines - Medical Assessment for Aviation
healthcare practitioner	means a qualified and registered health care professional, such as a medical practitioner, medical specialist, optometrist, physiotherapist, or other healthcare professional
medical requirements	means the medical requirements outlined in the Guidelines - Medical Assessment for Aviation
private operations	an operation of an aircraft is a private operation if the operation is not one of the following: a. an operation that is required to be conducted under the authority of an AOC under Part 119, 129 or 131 or regulation 206 of CAR b. an operation that is required to be conducted under the authority of an aerial work certificate under Part 138 c. Part 141 flight training (within the meaning of Part 141) d. a Part 142 activity (within the meaning of Part 142) e. an adventure flight for a limited category aircraft f. a specialised balloon operation that is conducted for hire or reward g. an operation authorised by a New Zealand AOC with ANZA privileges that is in force for Australia h. an operation under a permission under subsection 25(2) or (3) (non-scheduled flights by foreign registered aircraft) or section 27A (permission for operation of foreign registered aircraft without AOC) of the Act.

1.3 References

Legislation

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

Document	Title
Part 61 of CASR	Flight crew licensing
Part 67 of CASR	Medical
CASA EX69/21	CASA EX 69/21 - Medical Certification (Private Pilot Licence Holders with Basic Class 2 Medical Certificate) Exemption 2021

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Advisory material

CASA's advisory materials are available at https://www.casa.gov.au/publications-and-resources/guidance-materials

Document	Title
	Draft Guidelines - Medical Assessment for Aviation

Other references

Document	Title
Austroads	Assessing Fitness to Drive for commercial and private vehicle drivers (2022 Edition)
ICAO Annex 1	Personnel Licencing (Twelfth Edition, July 2018)
ICAO Annex 19	Safety Management (Second Edition, July 2016)
ICAO Doc 7300	Convention on International Civil Aviation (Ninth Edition, 2006)
ICAO Doc 8984	Manual of Civil Aviation Medicine

1.4 Forms

CASA's forms are available at http://www.casa.gov.au/forms

Form number	Title
Form 166	Recreational Aviation Medical Practitioner's Certificate (RAMPC)
Form 1473	Basic Class 2 medical certificate (available via MRS)

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2 Introduction

2.1 Background

Pilots and air traffic controllers must hold a current medical certificate to exercise the privileges of their pilot licence. For pilots, different classes of medical certificates are required to conduct different kinds of operations or hold different kinds of pilot licences.

Part 61 of the *Civil Aviation Safety Regulations 1998* (CASR) and its related Manual of Standards (MOS) set out the requirements and standards for the issue of flight crew licences, ratings, and other authorisations. At a minimum, a Part 61 Recreational Pilots Licence (RPL) is required to be able to fly for recreational purposes.

Medical standards underpin the assurance of acceptable levels of aviation safety by minimising the risk of pilots experiencing medical-induced issues that may lead to in-flight impairment or incapacitation. Part 67 of the *Civil Aviation Safety Regulations 1998* (CASR) sets out the requirements relating to medical certification and the requirements for designated aviation medical examiners and designated aviation ophthalmologists that undertake medical assessments.

As recommended by the Aviation Safety Advisory Panel (ASAP), CASA established an aviation medicine technical working group (TWG) to review Part 67 of CASR, and to consider options based on broad industry consultation and expert advice. The ASAP supported the recommendation from the TWG for the development of a new category of medical self-declaration for pilots that are looking to conduct private operations within a safety and quality assurance framework.

To date, there have been various approaches to medical certification aimed towards providing improved access to a more contemporary and simplified medical certificate process while still ensuring safety for pilots, passengers and third parties. The introduction of the Basic Class 2 medical certificate was an initial step towards providing a medical certificate for pilots conducting private operations that was more commensurate with these operations than the other classes of medical certificates. CASA now proposes to introduce a medical self-declaration scheme that provides an acceptable level of aviation safety that is more accessible to pilots with a more streamlined process. A regulatory priority in the CASA General Aviation Workplan is the streamlining and simplification of the medical certification processes while ensuring pilots remain fit and safe to fly.

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2.2 Previous consultation activities

There have been two previous public consultations:

a. December 2016 to May 2017 – The focus of this consultation was to investigate possible changes in standards for medical certification of pilots.
b. May to June 2022 – The focus of the consultation was to explore measures to simplify and modernise CASA's overall approach to medical certification.

In August 2022, the Aviation Medicine TWG considered the options for the modernisation of aviation medical certification in Australia for pilots conducting private operations in view of the industry consultation and expert advice to date. Accordingly, the ASAP recommended the introduction of a self-declaration scheme.

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3 Proposed Class 5 medical self-declaration policies

3.1 Overview

The proposed new Class 5 medical self-declaration is part of an overall CASA objective to review Part 67 of CASR.

The proposed new Class 5 medical self-declaration aims to support the recreational aviation community by providing pilots who wish to conduct private operations with a more streamlined and efficient medical certification pathway. This new pathway is self-assessed and self-certified within a risk-based and quality and assurance governance framework aimed at assuring aviation safety. The Class 5 medical self-declaration is proposed to be issued through an online self-declaration process. Where a pilot is not eligible for a Class 5 medical self-declaration, they will be required to apply for an alternative class of medical certificate that can be assessed by medical practitioners against the respective CASA medical standards.

The acceptable levels of risk associated with the medical self-declaration scheme will be managed through operational limitations, medical limitations and self-declared medical assurances. (Refer to sections 3.2 and 3.3 of this PP).

The medical self-declaration scheme for the Australian context has been developed in consideration of international regulatory models that do not require review by an ICAO-approved aviation medical examiner (AME) or an assessor. There is some alignment between the CASA approach with key principles from other similar National Aviation Authorities' non-AME medical certificate models for pilots conducting private operations. Fundamentally, the difference in the proposed Australian medical self-declaration is that there is no requirement for a medical assessment by a medical practitioner or an aviation medical specialist.

This policy proposal has been developed in consultation with aeromedical technical experts and key aviation stakeholder organisations. It is also based on the principles of the Basic Class 2 medical certificate and RAMPC but has been reformed to provide a medical self-assessment and self-declaration pathway.

The Class 5 medical self-declaration offers a pathway for pilots seeking a Recreational Pilot Licence (RPL) to be able to fly for recreation, or as an entry point for those looking for a licence to be able to commence flight training, or to explore a pilot career pathway. A holder of a Private Pilot Licence (PPL) will be able to use a Class 5 medical self-declaration (noting the applicable operational limitations) instead of the currently required Class 1, Class 2, or RAMPC.

A regulatory fee of A$10 is proposed for the Class 5 medical self-declaration. The proposed fee has been determined by CASA in accordance with the Australian Government Cost Recovery Policy. CASA is required to apply this policy to its regulatory charging activities, including application fees.

The proposed Class 5 medical self-declaration scheme will:

- establish an online self-assessment and medical self-declaration for pilots seeking to conduct private operations
- manage acceptable levels of risk through operational limitations, medical limitations, and medical assurances
- provide comprehensive guidance material for applicants, certificate-holders and their health care practitioners, regarding aeromedical risk assessment for states of health and

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diseases. This document is informed by the Austroads document Assessing Fitness to Drive and supported by education materials for pilots (or applicants) and healthcare practitioners.
- allow pilots successfully issued with a Class 5 medical self-declaration to access controlled and non-controlled airspace.[1]

3.2 Proposed medically related requirements and limitations

The medical requirements for the proposed Class 5 medical self-declaration are in the Attachment - *Guidelines - Medical Assessment for Aviation*. These guidelines have been developed with reference to the Austroads *Assessing fitness to drive* medical standards, with specific consideration of the flying task and the aviation environment. Unlike the Basic Class 2 and RAMPC use of the Austroads standards, the CASA Guidelines provide for flexibility based on medical advice.

Declaration for meeting the Class 5 requirements includes affirmation that the applicant:

- is 16 years of age or over to be eligible to apply and to undertake a medical self-assessment
- has referred to the *Guidelines - Medical Assessment for Aviation* to assess any safety relevant medical conditions to inform their self-assessment
- has successfully passed the knowledge examination that addresses the human factors syllabus, including medical fitness (this will be in the form of an e-learning module that will be part of the application process)
- meets the medical requirements for a Class 5 self-declaration, understands the operational limitations, and has provided true and correct information.

Factors that are expected to be considered by a pilot when making an assessment about whether their health status presents a hazard to safe air navigation include:

- the individual's knowledge about their own health (i.e., physical, mental, and emotional health) and the potential impact of their health on aviation safety
- where relevant or appropriate advice from their healthcare practitioner (e.g., GP, optometrist), on their self-assessment of state of health (in accordance with the Class 5 medical requirements and the *Guidelines - Medical Assessment for Aviation*).

It is proposed that the following medical limitations will apply. That is, pilots are **not** eligible for a Class 5 medical self-declaration if they have:

- previously had a driver's licence refused or cancelled for medical reasons[2]
- previously had a Class 1,2 or 3 aviation medical certificate refused or cancelled
- a medical condition identified in the list of excluded medical conditions for the self-declaration (see Appendix B.)[3]

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[1] Australian Airspace Structure summarises the classes of airspace.
[2] Where an independent healthcare practitioner has made a medical assessment that an individual is not medically fit, the individual is not eligible to apply for a medical self-declaration.
[3] The list of proposed excluded medical conditions has been prepared with the consideration of key international self-declared models, in particular the UK PMD, Canadian Category 4 medical certificate and the New Zealand DL9 Commercial Driver's License standards.

- been diagnosed with a disease or a condition that reduces their capacity to self-assess and/or make a declaration
- been regularly taking a medication or using substances that may reduce their capacity to self-assess and/or to make a declaration
- been diagnosed with a disease or a condition that can become suddenly and unpredictably safety-relevant in the flying environment
- a medical condition that makes an individual unable to perform all required aspects or the flying task safely.

The Class 5 medical self-declaration is proposed to have a validity period of 5 years except in the following circumstances:

- Pilots over 40 years old, or with a conditional drivers' licence (including those who develop a medical condition) - a validity period of 2 years.
- Pilots 75 years old and over - an annual renewal with the requirement to provide a copy of any aged-based annual driver's licence medical review.

The Class 5 renewal will also be contingent on completion of the Class 5 medical requirements/guidance materials training package, including passing the e-learning knowledge module.

CASA recommends that the *Guidelines* developed by CASA are read in conjunction with the self-declaration certification application form. The *Guidelines* are designed to provide pilots information on the principles of aeromedical risk assessment and guidance for the assessment of medical fitness to be able to complete a medical self-assessment and to make a self-declaration. The guidelines will also guide healthcare practitioners in the provision of appropriate advice to pilots on their medical self-assessments.

In some cases, after reading the *Guidelines*, pilots may need to consult their healthcare practitioner to inform their medical self-assessment and before signing the self-declaration. Pilots are encouraged to discuss symptoms, diagnosis, and management of any medical condition(s) with their GP (or an aviation medical examiner) and the compatibility of their condition with flying. Where medical conditions are present, pilots may need to seek an alternative class of medical certificate other than the new medical self-declaration.

Applicant pilots are responsible for ensuring that their self-assessment of level of fitness to fly safely in accordance with the medical requirements and that all information provided in the declaration is true and accurate.

In accordance with the current regulatory requirements, where there is a change in safety-relevant health status, pilots are responsible for advising CASA of any change in health circumstance as soon as practical, whether temporary or longer-term impairment or incapacitation, that may impact on their eligibility for Class 5 medical self-declaration.

Where CASA determines that a pilot has made a false or misleading statement, CASA may suspend or cancel the medical self-declaration.

If a pilot's medical fitness changes and it affects their eligibility to hold a Class 5 medical self-declaration, the pilot will be prohibited from flying an aircraft until their fitness status allows them to regain their eligibility.

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3.3 Proposed operational limitations

As outlined in section 3.4 below, on the basis of risk, CASA assessed that the medical limitations associated with the self-declaration required additional operational controls to provide sufficient assurance of the maintenance of an acceptable level of aviation safety. Therefore, CASA proposes to implement the operational limitations described in this section on a pilot operating under a Class 5 medical self-declaration.

These are considered the primary safety controls along with the medical limitations. The operational limitations are designed to control both the likelihood of risks occurring, and the consequences of risks if they do occur.

The proposed operational limitations are:

- aircraft certificated maximum take-off weight (MTOW) must be 2000 kg or less
- private operations only
- must only operate under the visual flight rules (day VFR) by day (no IFR, no IMC, no night VFR)
- must not operate above 10,000 ft above mean sea level
- must have no more than 2 persons on board including any crew members (generically one pilot and one passenger, or two pilots and no passengers)
- must not use a Part 61 operational rating (e.g., instructor rating or low-level rating, for a complete list, refer to the definitions in regulation 61.010 of the CASR)
- must not conduct aerobatics or formation flying
- must not operate outside Australian territory (except for flights from Victoria to Tasmania).

Appendix C provides further explanation of the operational limitations for the Class 5 medical self-declaration.

3.4 Risk assessment

The proposed self-declaration certification scheme will be managed within an appropriate risk-based governance framework that is commensurate with the type of recreational aviation activities and through the operational limitations and medical assurances.

CASA conducted multiple risk workshops and discussed the outcomes of these workshops with the Aviation Medicine TWG.

The self-declared medical assurances that are aimed at minimising safety risks, and that are in conjunction with the medical and operational limitations, include:

- comprehensive guidance materials - *Guidelines - Medical Assessments for Aviation* developed with reference to the Austroads *Assessing fitness to drive* medical standards with specific relevance to aviation safety. This includes a list of excluded medical conditions where pilots will not be eligible for the Class 5 medical self-declaration or may require a review by a healthcare practitioner.
- that a pilot has considered their health status based on the training and understanding of responsible behaviour regarding medical fitness

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- where required or appropriate, advice from the pilot's treating healthcare practitioner about their health status and its safety relevance for aviation, with regard to the *Guidelines - Medical Assessments for Aviation*
- the responsibility and legal obligations of the pilot to provide a correct self-assessment and self-declaration to CASA, including that the pilot does not have any of the excluded medical conditions
- CASA's quality assurance processes to oversee implementation and identify any opportunities for improvement, e.g., guidance materials, processes, whether pilots and healthcare practitioners are using the system effectively.

Additionally, CASA also proposes to implement the following **secondary risk controls** that are acknowledged by CASA to be of lower direct effectiveness:

- implementing a relevant, reliable, and well-structured training system for healthcare practitioners
- publishing guidance material on the medical requirements for the Class 5 medical self-declaration on the CASA website
- system controls to capture whether a pilot had previously had a Class 1 or Class 2 medical cancelled or refused
- establishing an audit program to monitor the effectiveness of the implementation and quality and safety of outcomes from the Class 5 medical self-declaration.

The proposed audit program aims to support safe self-assessment, that pilots are making informed self-declarations, the risk treatments are appropriate, and that the guidance materials are effective. The proposed audit program will include:

- a proportion of Class 5 medical self-declarations will be randomly selected for audit
- selected applications being cross-referenced with CASA aviation medicine records
- some pilots being requested to provide additional supporting medical information
- reviewing Australian Transport Safety Bureau safety occurrence data based on the class of aviation medical certificate.

CASA considers that the operational limitations, in conjunction with the medical limitations, will reduce both the likelihood of a risk occurring, and the consequence if a relevant risk does occur, to an acceptable risk level.

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3.5 Impacts on industry

This draft proposal has been released for formal public consultation. CASA has assessed the impacts on the aviation industry to be as described below. These assessments were informed by previous consultations concerning CASA policy and the Aviation Medicine TWG.

3.5.1 Pilots

The proposed policy is assessed to have a positive impact for private pilots who are seeking an RPL or PPL to be able to conduct private operations. With an online, self-assessment and self-declaration application process, it is expected that there will be efficiencies for pilots to obtain a Class 5 medical self-declaration. This would include access to the medical self-declaration scheme to obtain a medical to fly and the reduction of the time associated with the application

process and an issuance of a medical self-declaration. The holder of a PPL can make a Class 5 medical self-declaration and should consider the applicable operational limitations.

Guidance materials and training will be available to support pilots to undertake their medical self-assessments.

The proposed application fee of A$10 and is determined in accordance with the Australian Government charging policy, is not expected to deter applicants from applying for the medical self-declaration.

3.5.2 Healthcare practitioners

Consultation with a healthcare practitioner is optional for Class 5 applicants. However, it is anticipated that non-aviation medicine practitioners will experience an increase in pilots seeking advice to inform their fitness self-assessment and self-declaration.

The proposal policy includes providing focussed guidance, education and resource materials to applicable non-aviation medicine specialist healthcare practitioners, e.g., GPs, other medical specialists and healthcare professionals. This guidance is to assist healthcare practitioners with the provision of advice to applicant pilots in relation to their self-assessment.

Professional Colleges for General Practitioners - Royal Australian College of General Practitioners (RACGP) and the *Australian College of Rural and Remote Medicine (ACRRM)*

CASA assesses that the professional colleges for general practitioners will be required to provide increased advice on aviation medicine matters to their members. CASA intends to consult with the colleges on how they can best support the proposed policy, in accordance with the broader communication strategy.

3.5.3 Sport Aviation Bodies

The proposed policy does not alter the self-declaration medical scheme utilised by some Sport Aviation Bodies (SAB).

If adopted by the SABs, the CASA Class 5 medical self-declaration offers an alternative medical certification option for SAB pilots conducting operations under the auspices of the SAB.

Appendix A outlines the differences between SAB self-declaration medical and the Class 5 medical self-declaration.

3.5.4 Insurance companies

The proposed policy may be of interest to the Insurance Council of Australia and insurers, who may wish to consider the currency of the terms and conditions of their policies offered to pilots that seek a Class 5 medical self-declaration, for example if there is a misrepresentation or an understatement of their health status.

3.5.5 Flight Training Schools/Flight Instructors

CASA assesses that flight training schools and flight instructors will be required to provide increased support to pilots through the provision of information on the Class 5 medical self-declaration.

Flight schools and flight instructors will have access to the Class 5 guidance and education materials and focussed training modules.

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4 Proposed implementation of the policy

4.1 Short term activities

If CASA proceeds with this policy proposal after this consultation activity, the initial implementation activities would include the following:

- creating an appropriate exemption from existing regulations
- modifying relevant IT systems to facilitate the online application process and issuance of a CASA Class 5 medical self-declaration upon the successful completion of an application
- publishing the final Guidelines and other Class 5 medical self-declaration guidance and education materials on the CASA website
- exploring options for provision of guidance materials and other relevant resources to ensure they are accessible regardless of geography or access to the internet
- establishing the quality assurance program for the Class 5 medical self-declaration, such as the proposed audit program and post-implementation review.

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4.2 Transition strategy

The following will be considered as part of the transition strategy for the new policy:

- a communication strategy that identifies all impacted stakeholders
- Medical Records System enhancements to support the new Class 5 medical self-declaration
- education and guidance materials for potential pilot applicants to ensure they are well informed to be able to apply for a Class 5 medical self-declaration and can undertake a self-assessment, including those pilots who may hold a current Basic Class 2 medical certificate or a RAMPC
- guidance materials and resources for healthcare practitioners who may provide advice to an applicant on their self-assessment of fitness in accordance with the *Guidelines - Medical Assessment for Aviation*
- the implementation and ongoing delivery of the quality and assurance framework[4]
- any potential consequential impacts from the implementation of the policy.

The following is the proposed transition arrangements for the Class 5 medical self-declaration:

- Once the new self-declaration certification policy is in effect, any pilots that wish to continue to apply for a Basic Class 2 medical certificate or RAMPC can do so. However, pilots will be given the opportunity to apply for a Class 5 medical self-declaration. It should also be noted that the RAMPC and Basic Class 2 certificate may be subject to change in light of other reforms CASA is considering for the aviation medical scheme, including a proposed Class 4 medical certification and the related reform amendments to CASR.

4 The quality and assurance framework is an integrated part of CASA's corporate governance structure which supports decision making and accountability.

- For those pilots who have a current Basic Class 2 medical certificate or RAMPC, the duration of their medical certificate will remain unchanged, and they will be able to apply for a Class 5 self-declaration certification when they need to renew their medical certificate.
- Upon the commencement of the new policy, pilots who have recently applied for a Basic Class 2 medical certificate or RAMPC, will be contacted and guided to information about the new Class 5 self-declaration certification and will have the opportunity to change the category of their medical certificate.
- Holders of an expiring RAMPC or Basic Class 2 medical certificate before the commencement of the Class 5 self-declaration certification will be advised about the option to apply for the new Class 5 medical self-declaration when the scheme commences.

4.3 Medium term activities

Follow-on activities in the medium term would include:

- conducting appropriate consultation and associated activities for the proposed Class 4 medical certification that will permit more operations than Class 5 (anticipated by late 2024) but will require a GP medical examination. The Class 4 medical certificate is proposed to replace the Basic Class 2 medical certificate.
- additional amendments to regulations previously identified in the aviation medicine policy review that support other reforms to the aviation medical certificate structure (anticipated for 2025/2026)
- proposed development of a Part 67 MOS in due course to support the broader amendments to the aviation medical certification structure referenced in Part 67 of CASR, including the amendment of the regulations to replace the RAMPC with the Class 5 medical self-declaration.

4.4 Post Implementation Review

A comprehensive post-implementation review (PIR) of the policy is planned within 12 months of the commencement of the proposed new policy. The PIR will be an opportunity to review and consider the effectiveness of the policy. It is proposed that a further PIR will be undertaken 2 years after implementation that will include a comprehensive safety impact assessment of the implementation.

It is expected that the PIR will also inform the consideration processes for the proposed Class 4 medical certification.

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5 Closing date for comment

CASA will consider all comments received as part of this consultation process and incorporate changes to the proposed policy as appropriate, Comments on the policy proposal should be submitted through the online response form by close of business **17 November 2023**.

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Appendix A

Medical certificate comparison tables

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A.1 Table 1a – Australian certificates, medical

Medical	CASA Class 5 (proposed) ~ Indicates dissent with TWG	RAAus	Basic Class 2	RAMPC
Eligibility	~Never had a driver's license cancelled for medical reasons. Does not have any of the listed excluded conditions. Has completed mandatory online knowledge check.	Any.	Not eligible if they have previously had a CASA Class 1, 2 or 3 medical certificate suspended or cancelled.	Any.
Doctor involvement	Not required. Recommended that advice be sought per guidance material.	Not required, except: • At age 75, and if any of the listed medical conditions, and if instructing.	Examination by any medical practitioner.	Examination by any medical practitioner.
Processes and forms	Pilot completes declaration. No excluded conditions. Have referred to and followed medical guidance. Are eligible as above. Class 5 medical self-declaration is auto-issued by CASA.	Self-declaration - RAAus Medical Declaration (Form MED002) OR Exam (GP) for certain listed medical conditions (form MED 001) OR Exam (GP) for instructors (Form MED003) – Commercial Driver License Standard. Pilot submits the declaration form and doctors form (if needed) with their BFR (every 2 years). No certificate issued.	Pilot downloads the form (pilot questions, doctor questions, doctor examination – Form 1743, 1474, 1475). Doctor completes paper forms and signs. Pilot completes declaration in MRS. CASA issues the exemption from holding a Class 2 medical certificate.	Pilot downloads the form (pilot questions, doctor questions, doctor examination). Doctor and pilot complete paper form (Form 166). Doctor issues the certificate.

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Medical	CASA Class 5 (proposed) ~ Indicates dissent with TWG	RAAus	Basic Class 2	RAMPC
Medical standard	Guidance material only. Guidelines - Medical Assessment for Aviation with a range of disqualifying criteria.	AFTD private drivers license. AFTD commercial drivers license for instructors.	Austroads medical standards (unconditional) for commercial motor vehicle drivers (excludes glasses and hearing aids).	"Modified Austroads Standard" - Austroads medical standards (unconditional) for private motor vehicle drivers with some additional CASA disqualifying criteria.
Excluded conditions	Diseases causing impaired capacity to declare (dementia, psychosis etc), or diseases with unpredictable and unheralded incapacity (seizures etc). Significant examples listed on the class 5 medical self-declaration form.	None specified.	None specifically.	Listed on RAMPC Form.
Validity period	Every 5 years to age 40 then every 2 years thereafter. 1 year for age 75 years and over.	Every 2 years.	1 year for age 70 years and over. 2 years for age between 40-69.	Certificate duration: • 1 year for age 65 years and over • 2 years for age under 65.

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A.2 Table 1b – Australian certificates, operational

Parameter	CASA Class 5 (proposed) ~ Indicates dissent with TWG	RAAus	Basic Class 2	RAMPC
MTOM/MTOW	2000 kg	600/650 kg (water/non water). Up to 750 kg on application.	<8618kg	1500kg
POB	~2 (pilot + 1 pax)	1 2 (pilot + 1 pax) only with PAX endorsement.	6 (1 pilot + 5 pax).	2 (pilot + 1 pax).
Aircraft type	NS	2 seats. 3-axis, weight shift, powered parachutes.	Piston engine only.	Single engine piston.
Power/speed	NS	NS	NS	NS
VFR/IFR/Day/Night	Day VFR only	Day VFR only	Day VFR	Day VFR
Operational ratings/flight activity endorsements	~No aerobatics ~No formation No low-level rating No instructor rating	Formation with endorsement. Low level with endorsement.	No operational ratings. No flight activity endorsements.	No aerobatics
Altitude	~10,000 ft	10,000 ft (not below 500 ft)	10,000 ft	10,000 ft
Air space	Access to controlled and non-controlled airspace.	Not in controlled areas.		

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Parameter	CASA Class 5 (proposed) ~ Indicates dissent with TWG	RAAus	Basic Class 2	RAMPC
Other authorisations	NS	Cross-country, radio operations, Glider towing, Tail wheel, 2-stroke, adjustable propellor, retractable undercarriage, floats, utility with endorsement.	These restrictions do not apply if a qualified pilot in the control seat has a valid Class 1 or Class 2 medical certificate.	The airspace, passenger and aerobatic restrictions do not apply if the pilot in a control seat: • is suitably qualified • aerobatic flight endorsed (if relevant) • has a valid Class 1 or Class 2 medical certificate.

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A.3 Table 2a – International certificates, medical

Parameter	UK PMD-2000	UK PMD-5700	UK LAPL-Med	Canada Cat 4	NZ DL-9	US BasicMed
Eligibility	Must already have a license (and med cert). Not taking medication for any psychiatric illness.	Must already have a license (and med cert).	Any.	Never been refused on medical grounds a motor vehicle license, aviation permit, or life insurance.	Any.	Must hold a valid state driver's license and have held FAA medical cert since 2006 (not suspended or revoked).
Doctor involvement	Not required. (Dr involved in initial medical assessment to be eligible for subsequent pilot medical declaration (PMD)).	As needed: • AME for PMD, other doctors as required for driver and vehicle licensing agency (DVLA), and initial certificate • Mandatory reporting by app to DVLA where the DL standard is not met (and doctor authorised to report)	Required for every certificate. Mandatory reporting by app to DVLA where the DL standard is not met (and doctor authorised to report).	Required for every certificate.	Not mandatory medical may be conducted by Medical practitioners, nurse practitioners or registered nurses. App must notify Medical professional that the DL9 will be used for flying. Mandatory reporting by Medical practitioners, nurse practitioners or registered nurses to CAA NZ and NZTA/Waka Kotahi.	Required for every certificate.
Processes and forms	Pilot completes affirmation of their reasonable belief that they meet the requirements for a DVLA car license.	PMD requires affirmation by pilot of reasonable belief that they meet the DVLA Group 1 (car) license standard, AND If any of the below	Doctor issuing certificate must be a GP. Medical examination if aged over 50 years and for first light aircraft pilot licence (LAPL)	Physician attestation that the pilot's medical declaration is accurate.	Comprehensive clinical examination (NZTA guidance. DL9 form completed.	State-Registered medical practitioner completes form 8700, plus any state driving license medical requirements. Comprehensive

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Parameter	UK PMD-2000	UK PMD-5700	UK LAPL-Med	Canada Cat 4	NZ DL-9	US BasicMed
		apply (or if unsure), pilot must consult with an AME.	application. AME review for medical conditions; See GP guidance.			Medical Examination Checklist. Supply 3 years of medical records.
Medical standard	DVLA Group 1 (car).	DVLA Group 1 (Car License).	LAPL medical conditions.	Physicians are referred to Handbook for CAME.	NZTA Driver License Class 2 (2,3,4,5) = Commercial with Passenger endorsement.	Have previously held FAA Class 3 (PPL) medical. Physicians are referred to FAA Class 3 (PPL) standards.
Excluded conditions	Medication for a psychiatric illness.	Extensive list requiring AME review.	Extensive list requiring AME review.	Never suffered from any of the listed medication conditions.	Must declare any medical conditions that may affect your ability to drive safely.	Require special issuance if following list of medical conditions.
Validity period	Valid to age 70 unless a reason to withdraw the declaration or DVLA restriction. Every 3 years after age 70.	Valid to age 70 unless a reason to withdraw the declaration or DVLA restriction. Every 3 years after age 70.	Every 5 years under age 40 (to 42nd birthday); every 2 years from age 40.	Every 5 years.	Every 5 years up to age 40, every 2 years from 40+.	Every 4 years with doctor, every 2 years for BasicMed medical training course.

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A.4 Table 2b – International certificates, operational

Parameter	UK PMD-2000	UK PMD-5700	UK LAPL-Med	Canada Cat 4	NZ DL-9	US BasicMed
MTOM/MTOW	2000 kg	5700 kg	2000 kg	NS	2730 kg	6000 lb (2721 kg).
POB	4 (pilot + 3 pax)	4 (pilot + 3 pax)	4 (pilot + 3 pax)	2 (pilot + 1 pax)	6 (pilot + 5 pax) unless aeros (solo).	6 (Pilot + 5 others).
Aircraft type	Part 21 and non-Part 21.	Part 21 and non-Part 21.	Single engine piston land, A or H, or touring motor glider.	Glider, ultralight or recreational aeroplane (land or sea), single engine, non-high-performance. 4 seats or less.	Aeroplane and helicopter. No gliding (must have a Class 2).	No more than 6 occupants.
Power/speed	NS	NS	NS	NS	NS	250 KIAS
VFR/IFR/Day/Night	VMC; IMC for PPL(A); night rating if colour normal; no IR.	VMC; IMC for PPL(A); night rating if colour normal; no IR.	VMC; IMC for PPL(A); night rating if colour normal; no IR	Day VFR.	Night only within 25 nm of a lit aerodrome. No IFR.	VFR and IFR.
Operational ratings/flight activity endorsements	NS	NS	NS	Not permitted except for float rating.	Aerobatics only solo above 3000 ft.	NS
Altitude	NS	NS	NS	NS	25000 ft AMSL	18000 ft AMSL
Air space	NS	NS	NS	Not in controlled areas	Permitted in controlled areas if radio contact maintained OR has passed the colour vision test.	NS

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Parameter	UK PMD-2000	UK PMD-5700	UK LAPL-Med	Canada Cat 4	NZ DL-9	US BasicMed
Other authorisations	NS	NS	NS	NS	Cross county and Helicopter sling loads if flight training completed. Banner and drogue tow only above 500 ft. Parachuting not above 10000 ft. Glider towing only under control of a gliding organisation or adventure aviation operator.	Not for instructing.

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Appendix B

Proposed excluded medical conditions - Class 5 medical self-declaration

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As part of the risk management strategy and medical assurances, it is proposed that there is a list of medical conditions that **are ineligible** for a Class 5 medical self-declaration ("Class 5").

At the core of self-assessment for self-declaration are three critical elements:

1. The ability to reflect on personal health and wellbeing (How do I feel? Does the way I feel present a hazard to safe flying?)
2. To understand the details of symptoms, diagnosis and treatment (How bad is my disease? How much does it affect me? How do these medications make me feel? How much do they affect me?)
3. Predictability or reliability of that assessment for the flight (can the way I feel or the status of my disease change while I'm flying in a way that is unsafe and can't be predicted?).

While the guidance material and advice from healthcare practitioners will contribute towards the management of the second element, the capacity to self-assess and the reliability of that self-assessment are things that an individual may not necessarily be able to manage. For these reasons the aviation technical experts and TWG have proposed that an additional layer of medical assurance be added to the Class 5 that manages these issues.

The Class 5 proposal has been developed in consideration of the key principles of other international aviation regulatory models, such as the UK and New Zealand medical certificate. However, the proposed Class 5 medical self-declaration scheme does not require a medical examination by a medical/healthcare practitioner.

Where the medical conditions listed below are present, the pilot is **not eligible** for a Class 5, although they may be eligible for another Class of medical certificate. Pilots should discuss their symptoms, diagnosis and management with their GP or an aviation medical examiner to discuss whether and how their condition might be compatible with flying.

Pilots are **not eligible** for a Class 5 if any of the following apply:

1. If they have previously had a driver's licence medical certificate refused or cancelled.
2. If they have previously had a Class 1, 2, or 3 aviation medical certificate refused or cancelled.
3. If they have been diagnosed with a disease or condition that reduces their capacity to self-assess and/or to make a declaration *(This aligns with the private driver's licence medical standard - drivers with these diseases must see a doctor to assess their memory and cognition)*:
    a. Dementia or other memory disorders:
        i. For example, Alzheimer's disease, vascular dementia, Lewy Body dementia.
    b. Psychotic disorders or psychiatric diseases with psychotic features:
        i. For example, schizophrenia, bipolar disorder.
    c. Any other disease which includes cognitive impairment or decline as a known part of the natural history of the disease:
        i. For example, Parkinson's disease, traumatic brain injury.

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4. If they are currently regularly[5] taking a medication or using substances that may reduce their capacity to self-asses and/or to make a declaration:[6]
    a. Benzodiazepines and other sedatives
        i. For example, diazepam, alprazolam.
    b. Antipsychotics
        i. For example, olanzapine, quetiapine, aripiprazole.
    c. Tricyclic antidepressants
        i. For example, amitriptyline.
    d. Mood stabilising medications
        i. For example, lithium, sodium valproate.
    e. Narcotic analgesics
        i. For example, hydromorphone, codeine, morphine, oxycodone.
    f. Pain-modifying medications.
        i. For example, gabapentin, pregabalin.
    g. Drugs whether illicit or prescribed - anything that would lead to a non-negative initial result on a DAMP test, or be considered as problematic use of substances or a substance use disorder.
        i. For example, dexamphetamine, THC, alcohol dependence.
    h. Any medication that causes the pilot to have an alteration in sensory function, motor function or cognition.
5. If they have been diagnosed with a disease or a condition that can become suddenly and unpredictably safety-relevant in the flying environment:[7]
    a. Epilepsy and other seizure disorders, or diseases that could cause seizures.
    b. Blackouts or other sudden alterations of consciousness, or diseases that could cause these.
    c. Insulin-treated diabetes.
    d. High-risk pregnancy.
    e. Lung disease that requires oxygen therapy.
    f. Intracranial malignancies.
6. If they have a medical condition that makes them unable to perform all required aspects of the flying task safely[8]:
    a. Visual field or visual acuity that does not meet the private driver's license standards.
    b. Hearing loss that means they are unable to understand conversational voice at a distance of 2 m.
    c. Neurological or musculoskeletal or other functional impairment that causes them not to be able to operate the flight controls safely in all circumstances.

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[5] Regularly means taking the medication most days, and/or the disease or symptoms will become significantly worse if the medication is not taken on most days.

[6] This aligns with the private driver's licence standard - drivers with these diseases must see a doctor to assess the impact of their disease and their medication's effects on their ability to perform the required tasks safely.

[7] This aligns with the private driver's licence standard - drivers with these diseases must see a doctor to assess the nature and likelihood of these diseases causing them to be suddenly unable to safely perform the required tasks.

[8] This aligns with the private driver's licence standard - drivers with these conditions must see a doctor to assess their vision, hearing, and their physical functions.

If a pilot is unsure if they have a certain diagnosis, or they are unsure if their disease is severe enough to be safety-relevant, or they are unsure if their medication is of concern, they will be expected to seek advice from their GP or an aviation medical examiner before making a self-declaration.

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Appendix C

Proposed operational limitations for the Class 5 medical self-declaration

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The proposed operational limitations for Class 5 medical self-declaration pilots have been developed in consultation with the Aviation Medicine Technical Working Group (TWG). They have been developed through a comprehensive risk analysis process that is aimed at managing the increased likelihood of a Class 5 pilot having a medical impairment by mitigating the consequences of an accident in the air and on the ground. The mitigation strategies identified cover the type of aircraft, type of operations, number of people exposed, medical guidelines and excluded medical conditions, and quality assurance processes to validate the risk assessment process.

The proposed medical self-declaration scheme is a leading initiative and there is no known equivalent non-Aviation Medical Examiner medical self-declaration regulatory model. This means that there is no comparative data in Australia or internationally to quantify the likelihood of impairment, or the likelihood of an impairment-related accident, where pilots have not been assessed by a medical practitioner. The available data on doctor-issued (non-AME) certificates in aviation and road standards, with which the Class 5 medical guidelines are aligned, indicate that the Class 5 pilot population is likely to have between 5 times and 10 times the likelihood of impairment compared with the Class 2 medical examiner-certified pilots. The collection of impairment data for Class 5 medical self-declaration is a critical element in identifying and quantifying the likelihood and the impairment risk[9] for our population, to ensure our assessment is correct.

Air safety occurrences require mandatory reporting under the *Transport Safety Investigations Act 2003.* Class 5 medical self-declaration pilots will be required to report on any medical issue in flight that caused them to have reduced capacity to control the aircraft for any period of time, or a change to the flight plan due to an issue, such as land early, divert, change altitude, hand over control to another pilot. CASA will collaborate with ATSB to ensure this data is reliably captured for Class 5. The safety occurrence data will inform the safety and risk assessment element of the PIR.

The material below is intended to provide some further explanation of the rationale for some of the operational limitations.

1. **Maximum Take-off Weight (MTOW)** – the proposed certificated maximum take-off weight of no greater than 2000 kg is aligned with the UK CAA MTOW requirements for their Pilot Medical Declaration.

   The proposed MTOW of 2000 kg is desirable from a private pilot perspective as it captures the majority of aircraft on the Australian Register that would be operated by a private pilot. It is desirable from a hazard reduction perspective as it reduces the number of complex aircraft (multi-engine or high-performance) within scope which reduces the cognitive load on a subject pilot.

2. **People on Board (POB) –** the proposed limit of 2 persons (pilot and 1 passenger) on board is aligned with the limitation for RAAus self-declaration with passenger endorsement, and the CASA RAMPC.

   This is desirable from a risk reduction perspective as it limits the number of directly affected persons as a consequence of pilot incapacitation, which is a higher risk under the Class 5 medical self-declaration scheme than under other CASA medical certification

[9]US FAA BasicMed review, 12% annual risk of death from all causes in BasicMed holders. AFTD and UK DVLA private driver impairment risk threshold = 20% per annum. Class 2 solo pilot risk threshold = 2% per annum.

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options. However, it should be noted that the number of indirectly affected persons as a result of pilot incapacitation could be significantly higher if other aircraft or persons on the ground are impacted by an adverse incident.

3. **Altitude 10,000 ft** – the proposed altitude ceiling is a risk treatment for aeromedical conditions i.e.**,** hypoxia. It is consistent with the limit for RAAus, RAMPC and Basic Class 2 medical certificate.

   Oxygenation of tissues requires the transfer of oxygen from the atmosphere to the body's cells, using a number of physiological steps. A critical determinant of gas transfer from atmosphere all the way through to cells is partial pressure of oxygen. At 10,000 ft, the partial pressure of oxygen goes below that which is required for effective gas transfer in healthy adults at rest, noting that pilots conducting their duties are definitely not 'at rest'. At 10,000 ft these healthy adults start to experience impairment of executive function and increasing demands on their cardiac and respiratory systems. If the person has a health state, disease or medication that reduces the transfer of oxygen in lungs and tissues, circulation of blood to tissues, carriage of oxygen in haemoglobin or red blood cells, or increased tissue oxygen demand compared with a resting healthy adult, they will experience the onset of impairment of executive function and increased cardiorespiratory demand at less than 10,000 ft.

   Pilots with cardiac, respiratory, and neurological diseases will be more impaired by hypoxia from 5,000 ft upwards and will certainly be significantly impaired by 10,000 ft (below PaO2 50mmHg, SaO2 <90%). Guidance material will advise pilots to seek advice from doctors about whether they should self-limit at a lower altitude.

4. **Access to airspace –** proposed access to controlled and non-controlled airspace.

   While safety remains paramount, CASA is required to foster efficient airspace use and equitable access to airspace for all users when administering Australia's airspace. The proposed access for Class 5 pilots to controlled and non-controlled airspace follows risk assessment and consultation with CASA technical experts and the TWG.

   A pilot licensed under Part 61 of CASR must demonstrate competencies before operating in controlled airspace (CTA). Operating in controlled environments is more structured and formal, more demanding and with an increased emphasis on safety awareness and willingness to self-report errors or any inability to comply with Air Traffic Control instructions.

   Permitting access to CTA is intended to reduce the likelihood of mid-air collision or collision with terrain and reduce the number of fatalities in aircraft and on the ground in the event of these occurrences. This will be done using the existing Airservices Australia systems to maintain separation and manage aircraft movements.

   The issue of access to CTA will be reviewed as part of the post-implementation review of the Class 5 scheme.

5. **No aerobatics** – further to a risk assessment of likelihood and consequence of risks of incapacitation in-flight and to ensure there is a risk control in place, it is proposed that Class 5 medical self-declaration pilots are not permitted to conduct aerobatics.

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Aerobatic manoeuvres subject the pilot to +Gz ("G") forces which incur significant physiological burden. Aerobatically-capable civil aircraft can expose pilots to up to 9G (modern military aircraft approach 15G). G tolerance varies based on the rate of onset, peak G levels, the use and effectiveness of the anti-G straining manoeuvre, G-protection equipment and pressure breathing. G tolerance also varies based on the pilot's cardiac function, respiratory function, muscle strength and endurance, hydration status, fatigue status and cerebral perfusion. Exposure to G can also cause impairment of cardiac and respiratory function, visual function, or balance and orientation function will reduce G tolerance and increase risk of spatial disorientation.

Fatal accidents are more likely to be the consequence of aerobatic manoeuvres as the incapacity is likely to be G-LOC, A-LOC or SD and therefore not likely to be recoverable even from higher altitudes.

6. **No formation flying** – further to a risk assessment of likelihood and consequence of risks and to ensure there is a risk control in place, it is proposed that Class 5 medical self-declaration pilots are not permitted to conduct formation flying.

   Formation flying relies on the pilot's ability to maintain separation from another aircraft in close proximity. This requires effective function of the visual system around depth perception, visual acuity and visual fields, plus effective integration of the visual system with executive functions to rapidly and accurately respond to time-critical aircraft, pilot and environmental cues. An assessment by a suitably trained clinician using specialised tools and processes is required, which is not part of the Class 5 medical self-declaration scheme.

   Any impairment to visual function, including peripheral field functional deficits, field deficits, and depth anomalies will reduce the ability to fly the sortie as briefed (short term memory and learning deficit due to impaired executive function), maintain separation (visual field and depth function, and executive function in time-critical responses to evolving flight situation).

   Aircraft in pre-planned close proximity have a significantly lower capacity to tolerate errors from pilots, whether generated from a medical issue or otherwise.

   The consequence of mid-air collision during formation flying due to loss of separation is more likely to be unrecoverable and result in loss of multiple aircraft and/or severe or fatal injuries to multiple occupants.

7. **Day VFR only (not IFR, IMC or night VFR)** – this is a measure to mitigate potential risks of an accident or serious incident as a result of in-flight visual dysfunction during flight.

   The normal operation of the visual system requires the absence of disease or dysfunction of the extra-ocular muscles, cornea, pupil, lens, retina, optic nerve, optic tracts and optic cortex and executive function integration. Most of the diseases of the visual system (such as cataract, glaucoma, macular degeneration, hypertensive and diabetic retinopathy, require comprehensive assessment by an appropriate clinician with specialised equipment.

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Aviation Safety Committee Paper

ASC Meeting No.51

Agenda Item:	**TBA**
Board Action:	**Decision**
Subject:	**Class 4 Aviation Medical Certificate Model**
Origin:	[ASC action item?]
Prepared by:	SED (CSC-Avmed-PMO)

Desired Outcome:

1. ASC endorse the progression of work towards the proposed Class 4 aviation medical certificate under Part 67 with a view to implementation by instrument in late 2023.

Executive Summary:

2. A self-declared aviation medical certificate under Part 67 of CASRs is an important step in the modernisation of recreational aviation medical certification in Australia. For safe and effective implementation in a timely manner, CASA Avmed proposes a Class 4 self-declared medical certificate using a of a fit-for-purpose standard that is augmented by a decision-making pathway for flexible application by the pilot's suitably qualified Specialist GP.

Background:

3. Multiple rounds of consultation with stakeholders and participants in the Australian private and recreational aviation community over the last two decades have identified the importance of a self-declared aviation medical certificate. Stakeholders have sought alignment with other similar regulators including FAA, CAA UK, CAA NZ and CAA Canada. While each of these regulators' models has merits, none of them have the scope and flexibility that CASA is seeking. Attachment A details the differences in the key medical certification features of private and recreational type certificates, demonstrating the benefit of the CASA proposed approach.
4. Various approaches to self-declared medicals over the last two decades have been implemented external to Part 67 in an attempt to provide an accessible, flexible and safe recreational aviation medical certificate. These include the RAMPC, Basic Class 2 exemption and fitness assessments by ASAOs. Each of these have not been able to entirely deliver the desired outcomes, partly because they have not been supported by the comprehensive governance and implementation system that is provided with Part 67 medical certificates. As part of the reform of Part 67, a new "Class 4" self-declared aviation medical certificate is proposed to be formalised within the regulations, which will provide these extra layers of safety needed to support accessibilty and flexibility.
5. The Aviation Medicine TWG has considered options based on broad industry consultation and expert advice. Their recommendation is of a self-declared Class 4 within a strong framework of safety and quality assurance. The framework proposed by CASA Avmed to deliver this includes:
    a. development of a fit-for-purpose recreational aviation medical standard aligned with the private motor vehicle standards,
    b. simple and clear advice for users of this standard for self-declaration,
    c. pathways for escalation of decision-making to Specialist General Practitioners (SGPs) or to CASA for certification,
    d. focused training for SGPs with clear directions for application of the flexible recreational aviation medical standard, and

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e. assurance of the safe and effective use of the Class 4 certification process through CASA audit and oversight.

6. This approach allows Australia's version of the recreational aviation medical certificate to be more flexible and therefore more widely accessible by the general aviation community than those available in the jurisdictions listed above. Uniquely, CASA's approach will mean that the pilot's assessing SGP will be able to work with CASA and independent aerospace medicine specialists to apply a more flexible standard and make this certificate accessible even to pilots with medical conditions that would be excluded internationally. The proposed pathway for the Class 4 medical certificate is outlined in Attachment B.
7. Operational considerations are critical to the safe implementation of the Class 4. Appropriate but not excessive operational restrictions will balance the increased acceptance of medical risk, to achieve an optimal outcome that permits the majority of recreational pilots to undertake the majority of recreational activities. The scope of operations has been determined through a series of focused risk-assessment workshops within CASA, referencing existing licensing and certification restrictions and those of other jurisdictions, and set within the CASA Board's regulatory risk appetite and Australia's aviation safety system obligations.
8. Second-order benefits of the introduction of this Class 4 certificate include the potential transfer of significant numbers of private pilots from Class 2 across to Class 4. This may result in an improved capacity for CASA and authorised DAMEs to issue Class 1, 2 and 3 certificates. Further secondary benefits include readiness in advance for a likely move by ICAO towards a recreational aviation medical certificate, and readiness for delegation of more complex cases to non-CASA aerospace medicine specialists.
9. Introduction of the Class 4 medical certificate in this proposed form has the broad support of all major stakeholders and participants and will deliver an important outcome for the recreational aviation community. Delaying introduction until the making of the new Part 67, likely to be in 2025, will not provide any additional benefit from a safety or legislative perspective, but will erode confidence and goodwill within the industry. It is therefore proposed that the Class 4 medical certificate is implemented by instrument in 2023, after development of the above systems and processes, and subsequently incorporated in the new Part 67.

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Recommendation:

It is recommended the ASC **approve** the development of the proposed Class 4 recreational medical certificate and supporting governance systems and policies, for implementation by instrument in 2023.

Proposed Resolution:

The ASC approved the development of the proposed Class 4 recreational aviation medical certificate and supporting governance systems and policies, for implementation by instrument in 2023.

Prepared by: Dr Kate Manderson, Principal Medical Officer

Approved by: Andreas Marcelja, EM SED

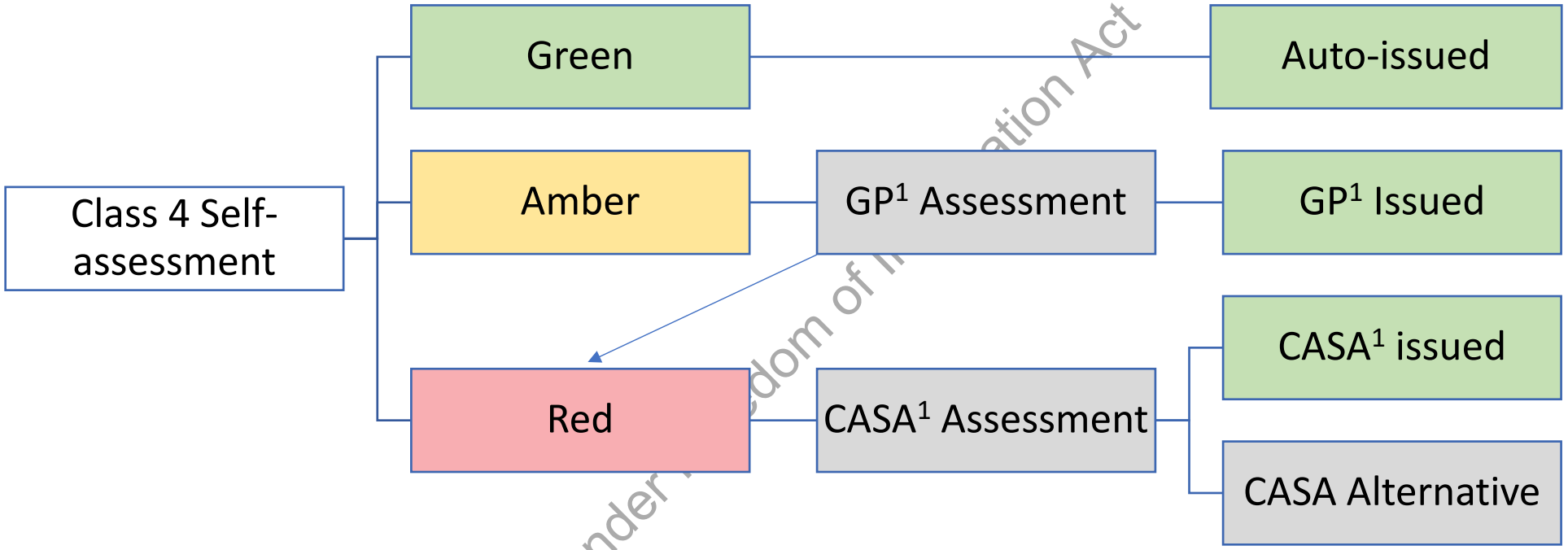
Date: Day/Month/Year

Attachments:

A Class 4 Comparison Tables

B Class 4 Pathways to Certification

Attachment B – Class 4 Assessment pathway



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Note 1: There is scope under broader regulatory reform for these assessments to be completed by an Aerospace Medicine Specialist, further reducing the direct involvement of CASA in the recreational and private medical certification process.