Australian Government Civil Aviation Safety Authority

Aviation Safety Advisory Panel

Aviation Medicine Colour Vision Technical Working Group Tasking Instructions

The Aviation Medicine Colour Vision Technical Working Group (TWG) is established and operates in accordance with the Terms of Reference of the Aviation Safety Advisory Panel (ASAP) dated November 2021 (or as amended).

Purpose

The role of the TWG is to provide relevant technical expertise and industry sector insight on colour vision deficiency and its assessment against the medical standard set out in CASR Part 67. The TWG will consider and provide advice on implementing CASA's Aviation Safety Committee in-principle decision to provide for an option of two tests to be available for individuals to meet the necessary medical standard for applicants who have not passed the initial colour vision screening and assessment tests.

Background

CASA is intending to formally determine the types of tests that will be available to pilots who are unable to pass the two clinical colour vision tests (Ishihara and Farnsworth) that are prescribed in Part 67 of the Civil Aviation Safety Regulation.

The regulations provide for CASA to make such a determination as a means of establishing that the medical standard is met. The determination will be made as a legislative instrument. This will provide transparency and create certainty in the way CASA treats colour vision.

CASA intends to determine two tests, which would give pilots the greatest flexibility and choice:

- 1. Aviation Colour Vision Assessment (ACVA): a test that requires a pilot to demonstrate competency in recognising, interpreting and reaction to colour coded visual clues in an operational aviation environment.
 - The ACVA will seek to combine the testing methodology developed by CASA that is focused on the safety-critical colour-dependent element of the Precision Approach Path Indicator (PAPI) with the previous Operational Colour Vision Assessment which captures safety-relevant elements of the flying task which was in place between 2020 and 2022 (based on operational testing in place in the US and New Zealand).
- 2. Colour Assessment and Diagnostic Test (CAD): a computer-based test of a colour vision severity and loss that has been adopted in the UK and other jurisdictions.
 - The CAD was developed to create an accurate and reproducible diagnosis of colour vision deficiency type and severity that does not rely on the applicant having familiarity with, experience in or access to the flight environment or the flying task, and testing thresholds for aviation assessment have been designed around pilot's performance in interpreting the Precision Approach Path Indicator (PAPI).

These two tests are considered to meet both the safety and legal elements of CASR Part 67 and ICAO medical standards, and an applicant that passes the tests would be issued a



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clean certificate, in that, they would not have any endorsement or restriction on their medical certificate pertaining to colour vision deficiency. An applicant would be deemed to meet the standard if either of the tests was passed.

Key principles

The TWG will:

- Provide industry sector insight and understanding of current issues relating to colour vision deficiency, meeting the medical standard of CASR Part 67, and medical certification in the presence of colour vision deficiency.
- Provide current, relevant technical expertise for the consideration and analysis of a
 draft legislative instrument schedule that will describe the required content of the
 tests, how the tests will be conducted and documented, and the thresholds that will
 determine when an applicant is considered to have passed the tests.
- Consider the public consultation strategy and offer advice on implementation
- Provide advice on the content of supporting materials such as training for examiners for all CVD tests, guidance materials for Flight Examiners, forms used for the documentation of test conduct and reporting of results

TWG outcomes

Expected outcomes of the TWG:

- 1. Provide guidance to the ASAP on or before 14 March 2024 on the required content, conduct and documentation to be contained within a Schedule of a legislative instrument for:
 - a. The Aviation Colour Vision Assessment, being the combination of the previous OCVA and the new ACVA
 - b. The CAD for colour vision assessment in aviation medical certification
- 2. Provide draft recommendations to the ASAP on or before 01 April 2024 on the required content, conduct and documentation of:
 - a. Guidance and supporting material for implementation of these two colour vision assessments

Roles and responsibilities

CASA	Technical Working Group Members
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- Organise meetings and workshops, and produce agendas, papers and supporting materials
- Facilitate meetings and workshops
- Record insights and findings
- Communicate openly, consistently and respectfully with working group members about project status and issues
- Respect the time of all working group members by minimising work required to achieve outcomes

- Commit to supporting the project objectives and timeline
- Engage and collaborate constructively and respectfully at all times
- Prepare for working group activities by reviewing agendas, papers and supporting materials
- Provide timely and considered advice in meetings, and between meetings as required
- Respond to requests for feedback on draft materials within agreed timeframe

Meeting Etiquette

TWG meetings are a place for robust discussion and collaboration between CASA and expert industry members. All meeting participants must feel safe and comfortable in order to express their opinions openly. Behaviour that disrupts the collaborative nature of the group or prevents other meeting attendees from participating equally will not be tolerated.

Confidentiality

All discussions and materials from TWG meetings should be treated as confidential. Premature dissemination of information may dilute TWG processes, particularly if discussion points remain unsettled or documents are not ready for public consultation.

There are some situations in which sharing of this confidential information may be permissible, such as:

- consulting subject matter experts from within the same member organisation
- providing background information to a delegate that is attending a meeting in place of a nominated representative from the same member organisation.

TWG members may choose to publicise their appointment on a TWG on social media. However, they are expected to take care to ensure that records and discussions from TWG meetings are not shared publicly, other than TWG tasking instructions and finalised TWG meeting reports (both are published on the CASA website).

Consensus

A key aim of the Technical Working Group is that a consensus be reached, wherever possible, in the finalisation and preparation of advice for the Aviation Safety Advisory Panel and CASA.

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The Technical Working Group will be guided by the ASAP Terms of Reference (Section 6) with respect to determining and documenting consensus.

Reporting arrangements

At the conclusion of the meeting, or soon thereafter, recommendations and reports of the TWG will be provided to the Chair of the ASAP, through the Secretariat.

Membership

Members of the TWG will be appointed by the ASAP Chair, following ASAP processes.

The ASAP may elect to appoint an industry co-chair for the TWG. An industry co-chair works closely with the CASA Chair to improve the flow of communication between industry and CASA.

Requests for changes to the membership will be made to the ASAP Chair, through the Secretariat.

Planned TWG Meetings

This TWG is expected to meet virtually up to four times during February and March.

Attendance and Travel

TWG meetings are generally held virtually via videoconference.

Face-to-face meetings can also be facilitated as needed at a location convenient and cost effective for CASA and TWG members. In the event a TWG meeting is held in-person, CASA will fund travel and accommodation for TWG members. Catering for the meeting will also be provided.

The Secretariat will make every effort to maximise attendance at TWG meetings. However, if a TWG member is unable to attend a TWG meeting, another suitable representative of the same member organisation is permitted to attend in their place.

Recordkeeping

TWG meeting records inform the ASAP of the discussions, recommendations and progress of a TWG. They can take the form of a meeting report or meeting summary. A meeting report will be produced for any TWG meeting that involves a formal recommendation and a meeting summary will be used for any other meeting. TWG members will have the opportunity to provide feedback on all meeting records before they are finalised. TWG meeting reports are also published on the CASA website.

An issues register will be maintained by CASA for transparency in documenting and resolving matters raised by the TWG. This will be made available to TWG members upon request.