

Thank you for the opportunity to respond to the initial proposals for a revised Civil Aviation Act. In submitting these comments, I have sought to highlight how some high risk safety-relevant medical issues in aviation can be identified and handled more effectively.

There is a clear, over-riding responsibility to provide a framework which promotes aviation safety. It must justify the confidence of all the participants in that framework. Aviation is a system with many interdependencies. Fundamentally it relies on trust and open communication to succeed. It is impossible to produce commitment to the system by coercion or micro-management of individuals. There must be genuine engagement, and in the aeromedical arena, that often appears to have been lacking.

There are a number of areas where the “framework” demands that a clear expectation is set. The reasons for this ideally should relate to the associated risk. Regulation of alcohol use and overuse offers a relevant and more positive illustration than some conditions. The introduction of a testing regime in Part 5, Subpart 2 provides the “stick”. But evidence demonstrates the greater efficacy of the associated carrot: the just culture handling the open disclosure of a potential hazard. (1) The HIMS (Human Intervention and Motivation Study addressing substance use) process offers very successfully, one such carrot. Both carrot and stick are needed.

In addition to engagement, the certification process needs improvement. The outdated system, while focussing on the minutiae of an identified medical problem, does so to the exclusion of the bigger picture. The combination of cumbersome process and poor practical engagement inevitably discourages the two-way flow of potentially important information between the regulator and regulated. It is sobering to recall that the Germanwings disaster occurred not because of a lack of mental health assessment of pilots, but because of a fatal flaw in information flow.

In the Civil Aviation Act 1990 and Airport Authorities Act 1966 Consultation Document 2014, the purpose of the review was described as follows:

11. The review provides an opportunity to refresh and improve the Act's usability, and ensure that its provisions are current and effective.

I offer these comments for your consideration and would be happy to expand on them further if required. They are my personal view and do not represent the view of any organisation.

Sincerely,

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PART 5, SUBPART 2: ALCOHOL AND OTHER DRUGS.

OBSERVATIONS

1. Substance-related medical conditions are identified as important pre-cursors to fatal aviation incidents.(2), (3).
2. Streamlining mandatory testing procedures and practice is an important part of a “carrot and stick” comprehensive policy on substance use in aviation. (1)
3. The current system relies upon truthful retrospective reporting of a positive alcohol or drug test.
4. There is no routine cross-referencing of positive drug and alcohol tests by external agencies, in particular police authorities, e.g. Driving under the influence. This information is known to be of aeromedical significance in predicting accident risk. (4)
5. In Australia, Civil Aviation Safety Regulations Part 99 lacks clarity about the responsibilities for the forwarding of information about positive tests in holders of aviation medical certificates. This is a recognised loophole. The amended CA Act should address this.

PROPOSED AMENDMENTS:

6. Include a requirement for holders of aviation medical certificates for reporting of positive alcohol and drug tests to CAA within 30 days. This is similar to the FAA provision.
7. Include a consent / mandatory disclosure provision for police authorities to release information about positive alcohol and drug tests to the CAA. This will enable the CAA to maintain a contemporary record of alcohol and drug offences, and manage these risks actively. Discussion will be needed about whether this is a "push" or "pull" trigger for information flow.
8. Explicit reporting mechanisms should be in place for the reporting of positive DAMP and CAA alcohol and drug tests in aviation medical certificate holders to the CAA. This ensures both DAMP tests and CAA tests are followed up appropriately. (Why test if nothing is done about the result?)

PARA106: INTERPRETATION

OBSERVATIONS

1. "Response Plan". The nature of the response is vague. Who is expected to determine *"permitting the worker to resume performing safety-sensitive activities, if the worker can do so safely"* if the individual is not prepared to participate? Doctors are not soothsayers or crystal ball gazers!
Is this a deliberate effort to avoid the presumption of guilt in non-participating employees? Given the known hazards of alcohol use and abuse, should there not be an incentive for all participants in aviation to submit to a testing regime? This will be a legal minefield.
2. The role of the Medical Review Officer (MRO). Australia introduced a requirement for MRO review in CASR Part 99 to ensure tests were accurately and appropriately interpreted (Refer 99.010, 99.055 & 99.070). The success of this is confirmed by the number of other safety-sensitive operators (e.g. mining, transport etc) who have followed suit.

PROPOSED AMENDMENTS:

3. Refusal to submit to a test should be considered as a non-negative test. (Recommendations could be made that consent to alcohol and drug-testing should be part of the employment agreement.)
4. MRO review of the test report should be included to avoid the erroneous interpretation and subsequent legal and employment liabilities of flawed and inadequate DAMPs.

SCHEDULE 2: MANDATORY REPORTING - CHANGES IN MEDICAL CONDITION OF LICENCE HOLDER

OBSERVATIONS

1. Mandatory reporting [Schedule 2 8(3)] is an ineffective vehicle for promoting the transfer of safety-relevant medical information from medical practitioner to regulator. This is evidenced by the low reporting rates in NZ.
2. In principle, legislation which is more widely ignored than observed requires revision.
3. A fuller review of international literature on this topic is appended.(5)
4. The main concern, which inhibits medical practitioners from reporting their concerns is the perception of risk in breaching patient confidentiality. While this may not be factually correct, the perception remains.
5. Many health practitioners do not know the occupation of their patients. This is of importance in safety-sensitive occupations.
6. Anecdotally most New Zealand medical practitioners do not know of the mandatory reporting requirement. I am not aware of studies measuring this: it is the impression from presenting in medical fora.
7. Many other health practitioners are in a position to have medical concerns about an aviation medical certificate holder. For example, a clinical psychologist or emergency department nurse.

PROPOSED AMENDMENTS:

8. Para 8(3) should be amended to indemnify all health practitioners, when providing medical information in good faith to the CAA.
9. Health practitioners need to know their patients' occupations. Publicising the importance of finding out and then considering the occupational implications of a medical condition is a more effective way of promoting safety-relevant notification. Medical organisations should be involved in this initiative.
10. Police are frequently involved in mental health and substance-related events. CAA contacts should be promoted to the Police service to encourage notification of any individual or public safety concerns to the CAA.

SCHEDULE 2: DURATION OF CONDITIONS, RESTRICTIONS, OR ENDORSEMENT IMPOSED OR MADE

OBSERVATIONS

1. Actions on medical certificates currently are complex and administratively cumbersome, accentuated by the outdated paper-based system.
2. Para 12(2) requires a change in medical condition of aeromedical significance to be handled by one of three actions. Most commonly this is a suspension.
3. No provision is made in the primary legislation for self-limiting conditions of short duration.
4. Suspensions must be initially for 10 working days (Is this an outdated concept?) and repeated for a further 10 working days prior to a disqualification.
5. These multiple steps and the complexity of the range of legal letters required to fulfil this task are confusing and unnecessarily unsettling to pilots and controllers.

PROPOSED AMENDMENTS:

6. Following the identification of an aeromedically significant change in medical condition, there are two possible outcomes:
 1. Imposition of conditions or restrictions, or more frequently
 2. Removal of flight or controlling privileges.
7. Para 12 should be redrafted to reflect a simpler process: i.e. fly / no-fly or fly with restrictions.

8. Surveillance requirements for monitoring of a condition remain an option for certificate holders who are still exercising their privileges.

SCHEDULE 2: SURRENDER OF MEDICAL CERTIFICATE REVOKED, WITHDRAWN, OR SUSPENDED

OBSERVATIONS

1. Para 18: Surrendering a medical certificate for a few days or weeks is an unnecessary and ineffective administrative provision.
2. Possession of a medical certificate is irrelevant to those minded to fly at any cost.
3. Such is the nature of the medical certificate that it is easily reproduced with the minimum of computer skills.

PROPOSED AMENDMENTS:

4. Para 18 should be amended to require the return of certificates which have been revoked.
5. Temporary actions should not be included.

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2. Li G, Baker SP, Lamb MW, Qiang Y, McCarthy ML. Characteristics of alcohol-related fatal general aviation crashes. *Accid Anal Prev*. 2005 Jan;37(1):143–8.
3. McKay MP, Groff L. 23 years of toxicology testing fatally injured pilots: Implications for aviation and other modes of transportation. *Accid Anal Prev*. 2016 May;90:108–17.
4. Li G, Baker SP, Qiang Y, Grabowski JG, McCarthy ML. Driving-while-intoxicated history as a risk marker for general aviation pilots. *Accid Anal Prev*. 2005 Jan;37(1):179–84.
5. de Rooy D, Drane AMC. ASMA Position Statement: Privacy vs. accountability balance. Aerospace Medical Association (In Draft); 2019.

DISCLOSURE OF INTERESTS

Current:

Medical Officer, Air New Zealand, Auckland

Previously:

Principal Medical Officer, Civil Aviation Safety Authority, Canberra, Australia

Medical Officer, Emirates Airline, Dubai, UAE

Medical Officer, Civil Aviation Authority of New Zealand, Petone

Private Pilot Licence - UK