Administrative Appeals Tribunal of Australia

Walker and Civil Aviation Safety Authority [2014] AATA 169 (28 March 2014)

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[2014] AATA 169

Division	**GENERAL ADMINISTRATIVE DIVISION**
File Number(s)	**2013/0533** **2013/1580**
Re	**Jonathan Walker** APPLICANT
And	**Civil Aviation Safety Authority** RESPONDENT

DECISION

Tribunal	**Deputy President PE Hack SC** **Dr W Isles, Member**
Date	**28 March 2014**
Place	**Brisbane**

A. In application 2013/0533 the decision under review is set aside and a decision substituted that a class 2 medical certificate not be issued to the applicant.

B. In application 2013/1580 the decision under review is affirmed.

.....[Sgd].....
Deputy President PE Hack SC

CATCHWORDS

CIVIL AVIATION – medical certificate – juvenile myoclonic epilepsy – extent to which relevant medical standard not met – whether a deficiency likely to endanger the safety of air navigation.

LEGISLATION

Civil Aviation Act 1988 (Cth) ss 9A(1), 11, 20AB(1)

Civil Aviation Regulations 1988 (Cth) reg 5.04(1)

Civil Aviation Safety Regulations 1998 (Cth) regs 11.055, 67.180, 67.150, 67.15, 67.015

CASES

Re Walker & Civil Aviation Safety Authority [2009] AATA 674

Re Window & ***CASA*** [1999] AATA 525; (1999) 56 ALD 316

Re Hall & ***CASA*** [2004] AATA 21

REASONS FOR DECISION

Deputy President PE Hack SC
Dr W Isles, Member

28 March 2014

Introduction

1. The applicant, Mr Jonathan Walker, is a pilot. He obtained a private pilot licence in October 2006 and a commercial pilot licence in January 2012. He aspires to be a commercial pilot but suffers from a condition called juvenile myoclonic epilepsy.
2. The respondent, the Civil Aviation Safety Authority, has the statutory responsibility for issuing aviation medical certificates. Even with an

appropriate pilot licence a pilot may not exercise the privileges of a licence except with a medical certificate appropriate for that class of licence.

3. In December 2012, when it came time for Mr Walker's medical certificate (as a private pilot) to be renewed, **CASA** imposed certain conditions on the certificate that Mr Walker found unacceptable. Then, in April 2013, **CASA** refused to issue him with the medical certificate that he requires to exercise the privileges of the holder of a commercial pilot licence. Mr Walker seeks a review of each of these decisions.
4. There is a further issue to be noted at this juncture. **CASA** does not seek to have the Tribunal affirm its December 2012 decision. The effect of its argument is that, in light of the evidence now available, its earlier decision was not warranted and that the correct or preferable decision that the Tribunal ought make in substitution for it is a decision revoking the medical certificate of December 2012. It says that Mr Walker's condition is such that no certificate, even one with conditions, may be issued to him.
5. Mr Walker puts in issue the entitlement of **CASA**'s right to seek to depart from its earlier decision. Expressed somewhat broadly, he contends that the decision to issue the certificate is not the subject of his application; that application concerns only the imposition of conditions. Implicit in Mr Walker's argument is the suggestion that, in truth, **CASA** is seeking to review an earlier decision of the Tribunal[1] which was favourable to Mr Walker. We deal below with the detail of that decision and the competing arguments.

The statutory setting

6. Section 9A(1) of the *Civil Aviation Act 1988* (Cth) (the Act) obliges **CASA**, and thus the Tribunal in its stead, to regard the safety of air navigation as the most important consideration in exercising its powers and performing its functions. The submissions, and the evidence, of **CASA** pointed as well to s 11 of the Act. That section obliges **CASA** to perform its functions in a manner consistent with Australia's obligations under the Chicago Convention, that is, the Convention on International Civil Aviation done at Chicago on 7 December 1944 together with Protocols amending it and Annexes adopted in accordance with it.
7. Section 20AB(1) of the Act (in general terms) and reg 5.04(1) of the *Civil Aviation Regulations 1988* (Cth) (the CAR) require the holder of a flight crew licence to hold a current medical certificate that is appropriate to that class of flight crew licence. In the case of a commercial pilot licence, the appropriate medical certificate is a class 1 medical certificate; in the case of a private pilot licence it is either a class 1 or a class 2 medical certificate.[2]
8. Medical certificates are issued by **CASA** pursuant to Part 67 of the *Civil Aviation Safety Regulations 1998* (Cth) (the CASR). A person may apply to **CASA** (in the approved form) for the issue of a medical certificate.[3] Regulation 67.180(1) of the CASR provides:

> *(1) Subject to subregulation (7) and regulation 11.055, on receiving an application under regulation 67.175,* ***CASA*** *must issue a medical certificate to the applicant if the applicant meets the requirements of subregulation (2).*

It is not necessary for present purposes to consider each of the requirements of reg 67.180(2) of the CASR. Only paragraph (e) is relevant. It requires that,

> *(e) either:*
> *(i) the applicant meets the relevant medical standard; or*
> *(ii) if the applicant does not meet that medical standard—the extent to which he or she does not meet the standard is not likely to endanger the safety of air navigation; ...*

9. By virtue of reg 67.150(1) of the CASR (but subject to some irrelevant exceptions) a person who satisfies the criteria in table 67.150 meets medical standard 1. Only three of those criteria are, or are said to be, relevant. They are in these terms:

Item	Criterion
Abnormalities, disabilities and functional capacity	
1.1	Has no safetyrelevant condition 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
...	
Nervous system	
1.7	Has no established medical history or clinical diagnosis of: (a) a safetyrelevant disease of the nervous system; or (b) epilepsy; or (c) a disturbance of consciousness for which there is no satisfactory medical explanation and which may recur
1.8	Is not suffering from safetyrelevant effects of a head injury or neurosurgical procedure

Regulation 67.155, and the table to it, prescribes criteria for medical standard 2 in the same terms. The meaning to be ascribed to "safety-relevant" is explained in reg 67.015 of the CASR in this way:

> *For the purposes of this Part, a medically significant condition is **safety-relevant** if it reduces, or is likely to reduce, the ability of someone who has it to exercise a privilege conferred or to be conferred, or perform a duty imposed or to be imposed, by a licence that he or she holds or has applied for.*

10. Regulation 67.180(1) of the CASR is made subject to reg 67.180(7) and to reg 11.055 of the CASR. The former sets out the circumstances where **CASA** "must not issue a medical certificate to an applicant". Those circumstances include, relevantly, where **CASA**,

> *... is satisfied that the applicant*
> ...

(b) does not satisfy the requirements of this regulation;...

11. **CASA**'s submissions place some reliance upon reg 11.055 of the CASR. It is expressed to apply, with some irrelevant exceptions, "despite any other provision of these Regulations". It provides:

> *(1A) Subject to subregulations (1B) and (1C), if a person has applied for an authorisation in accordance with these Regulations, **CASA** may grant the authorisation only if:*
> *(a) the person meets the criteria specified in these Regulations for the grant of the authorisation; and*
> *(b) any other requirements in relation to the person that are specified in these Regulations for the grant of the authorisation are met; and*
> *(c) any other requirements in relation to the thing in respect of which the application is made that are specified in these Regulations for the grant of the authorisation are met; and*
> *(d) these Regulations do not forbid **CASA** granting the authorisation in the particular case; and*
> *(e) granting the authorisation would not be likely to have an adverse effect on the safety of air navigation.*

It is not suggested that subregulations (1B) or (1C) of reg 11.055 are relevant to these proceedings.

12. **CASA** has power to grant a certificate subject to a condition. It is conferred by reg 11.056 of the CASR. So far as is presently relevant, it permits **CASA** to,

> *... grant an authorisation subject to any condition that **CASA** is satisfied is necessary:*
> *(a) for an authorisation, other than on authorisation to which sub regulation 11.055(1B) applies or an experimental certificate – in the interests of the safety of air navigation;*

Some uncontroversial medicine

13. It is as well to start with some matters of common ground. All of the medical witnesses, as well as Mr Walker's treating neurologist, Dr Nicole Limberg, are agreed that Mr Walker has juvenile myoclonic epilepsy. It is a relatively common form of epilepsy that usually, but not invariably, has its onset in teenage years. Juvenile myoclonic epilepsy is characterised by myoclonic seizures and usually by generalised tonic-clonic seizures. Absence seizures may also occur. Absence seizures are sudden trancelike events lasting usually 5 to 10 seconds, with immediate recovery thereafter. There may be little memory of the event after the seizure.
14. Myoclonic seizures are the hallmark features of juvenile myoclonic epilepsy, usually commencing in adolescence. They are contractions, typically of the hands, wrists or elbows, sometimes described as "jerks" that usually occur in the mornings on waking and are strongly precipitated by fatigue. They may be single events or, more commonly, occur repetitively over 30 to 60 minutes.
15. Generalised tonic-clonic seizures are more severe generalised seizures involving confusion and loss of consciousness associated with sometimes violent movements and contractions of the muscles (tonic-clonic contractions) of the body and limbs. They can appear with little or no warning.
16. It takes little imagination to envisage the potential consequences to a pilot’s capacity to adequately control an aircraft if subject to any of these

symptoms however there is a considerable body of evidence dealing with those possible consequences. We discuss that evidence below.

Some uncontroversial background

17. Mr Walker was born in 1982 and is now just short of his 32nd birthday. In 2002 he was involved in a motor cycle accident. A bike that he was riding collided head-on with another bike. Mr Walker was briefly concussed but not otherwise injured. There is some controversy about the circumstances of this accident and, in particular, whether it evidenced a seizure. We will return to this episode in due course.
18. In 2004, when he was 22 years old, he was employed as a roadside mechanic, an occupation that required him to be on call for the whole of a weekend from 6 pm on Friday until 6 pm on Sunday. During 2004, and invariably after the consumption of alcohol and working excessive hours, Mr Walker first noticed jerks or spasms in his hands in the first hour or so after waking of a morning. In July 2004 Mr Walker was taken by ambulance to the Royal Brisbane Hospital following an incident in a nightclub. On admission he described a history of six months of episodes recorded as seizures or fits. This event is of considerable importance in the medical history and the development of juvenile myoclonic epilepsy in Mr Walker. Again, we will return to examine the evidence of this episode in greater detail.
19. In August 2004[4] Mr Walker obtained a student pilot licence. He was issued with a Class 1 Medical Certificate in February 2005 and commenced training to obtain a commercial pilot licence shortly thereafter. His Class 1 Medical Certificate was renewed in February 2006.
20. In July 2006, at a time when Mr Walker had completed 76 flying hours (including 26 hours of solo flight), he consulted his Designated Aviation Medical Examiner (DAME), concerned that he was continuing to experience jerks on waking in the mornings. He was referred to Dr Limberg who diagnosed juvenile myoclonic epilepsy. He was referred for a second opinion to Dr John Cameron, another consultant neurologist who was, additionally, a DAME, and holds a Diploma in Aviation Medicine. Dr Cameron reached the same conclusion. Mr Walker was prescribed Epilim (sodium valproate), initially 400 mg per day. Epilim is an anti-convulsant.
21. Mr Walker notified **CASA** of the fact of the diagnosis. In November 2011 **CASA** revoked Mr Walker's medical certificate. In the meantime in September 2006, Mr Walker had successfully completed the tests required to obtain a private pilot licence.
22. In January 2008 Mr Walker ceased taking his medication. He wanted to demonstrate to **CASA** that he could be free of seizures without medication. In January 2009 **CASA** refused to issue Mr Walker with Class 1 and Class 2 medical certificates. Mr Walker sought a review of those decisions. In *Re Walker &* ***CASA***[5] the Tribunal, differently constituted, set aside **CASA**'s decision and remitted the matter to **CASA** for reconsideration in accordance with a direction that a Class 2 medical certificate be issued to Mr Walker, but subject to conditions including a condition that he continue to take anti-epileptic medication as prescribed to him by a qualified medical practitioner in consultation with a qualified neurologist.
23. As a result of the Tribunal's decision, Mr Walker was issued with a conditional Class 2 medical certificate in December 2009. The certificate was renewed in October 2010 and again in October 2011. Mr Walker continued to fly with the benefit of his private pilot licence. In October 2012[6] Mr Walker applied to **CASA** for Class 1 and Class 2 medical certificates. By letter of 20 December 2012 **CASA** notified Mr Walker that his Class 2 certificate had been issued subject to two conditions. First, the certificate was expressed not to be valid for Angel Flight or similar volunteer not-for-profit passenger-carrying operations. Additionally, he was required to provide results of blood tests showing valproate levels every two weeks. Mr Walker was dissatisfied with the imposition of these conditions. On 31 January 2013 he lodged an application to review the decision of 20 December 2012. That decision is the subject of application 2013/0533. Then on 8 April 2013 **CASA** made the decision which is the subject matter of application 2013/1580, a decision to refuse him a Class 1 medical certificate.

24. In August 2013, under the supervision of Dr O'Brien, Mr Walker had inpatient EEG at the Royal Melbourne Hospital having ceased his medication three weeks earlier. That EEG was reported on in these terms,

> *Abnormal interictal EEG due to frequent generalised epileptiform discharges.*

The EEG was consistent with primary generalised epilepsy disorder.

Consideration

25. There is no doubt that Mr Walker has both a history and a diagnosis of juvenile myoclonic epilepsy. The recent video EEG confirms that is still the case. The contrary was not suggested. That being so, it is axiomatic that he does not satisfy the criteria in Item 1.7(b) of Table 67.150 to the CASR nor the equivalent item in Table 67.155. He has an established medical history and clinical diagnosis of epilepsy. In those circumstances we do not regard it as necessary to consider whether he satisfies Items 1.1 or 1.8 of Table 67.150 or the equivalent items of Table 67.155. It is enough to say that Mr Walker does not meet the relevant medical standard for the issue of a class 1 medical certificate or a class 2 medical certificate.
26. Thus the question that arises is whether Mr Walker meets the relevant requirements of reg 67.180(2)(e)(ii) of the CASR. That draws attention to two questions,
    (a) what is the extent to which Mr Walker does not meet the relevant medical standard; and,
    (b) is that a deficiency which is likely to endanger the safety of air navigation.
27. We have a considerable body of medical evidence that touches on those issues. In some cases we have had the benefit of hearing (and seeing) medical witnesses giving evidence in addition to written reports, in other cases we have only written reports. We propose to start by making some general observations about the medical witnesses whose evidence we need consider.
28. The critical issue in the proceedings, the likelihood of Mr Walker experiencing seizures in the future, has traditionally been regarded as coming within the expertise of neurologists. We have reports, and have heard evidence from, Associate Professor Ernest Somerville, Dr John D Hastings, Professor Samuel F Berkovic and Professor Terrence O'Brien. All are well-qualified neurologists. We found the views of Dr Somerville, Dr Berkovic and Dr O'Brien most helpful. We are not able to say the same about the evidence of Dr Hastings. He seemed more concerned to recount the position in the United States (where he resides and practices) rather than speak to matters of medical opinion. His views, from which he would not waver, were expressed in this way in this report of 9 June 2013,[7]

> *From an aeromedical regulatory standpoint, a diagnosis of epilepsy has long been considered as a bar to all classes of medical certificate. In the United States, the Federal Aviation Act of 1958 included epilepsy among the original conditions requiring mandatory denial of medical certification. In 1979 an expert FAA panel led to a recommendation of permanent denial for all classes for a single seizure beyond age 5. In 1986 full remission for 20 years with a normal EEG and negative screen for anti-epileptic medication was recommended (unpublished data). In the early 1990s the "Rule of Tens" (ten years seizure-free, 10 years medication-free) came into practice. Current FAA policy for epilepsy (not otherwise specified) is ten years of seizure-freedom, three years medication-freedom.*
>
> ...
>
> *From an aeromedical certification standpoint, the diagnosis [of juvenile myoclonic epilepsy] alone is disqualifying for all*

classes of FAA medical certification. I am in agreement with this determination.

Despite this evidence Dr Hastings agreed that there was a discretion in the United States regulatory scheme to allow for the issue of a medical certificate to a person with epilepsy.

29. With the greatest of respect to Dr Hastings, he appeared not to comprehend the task of the Tribunal. That task, as we perceive it, is not to decide whether a diagnosis of epilepsy alone disqualifies an applicant from being granted a medical certificate. Rather, our task, once there is a diagnosis or history of epilepsy, is to consider whether that condition is likely to endanger the safety of air navigation. In the result we place no reliance on the views of Dr Hastings.
30. Associate Professor Pooshan Nāvathé is, and has been since 2008, **CASA**'s Principal Medical Officer. Not surprisingly, he has developed particular expertise in aviation medicine. It was he who made the April 2013 decision to refuse Mr Walker a class 1 medical certificate. Despite that role **CASA** has relied on two witness statements of Dr Nāvathé in which, amongst other things, he vigorously defends the opinion he earlier formed in making the decision to refuse Mr Walker a class 1 medical certificate. He expresses the opinion that,[8]

    ... there is a real and substantial risk that Mr Walker's condition could adversely affect his ability to exercise safely the privileges of his pilot licence. This is due to an elevated risk of future seizure activity which, in the confines of an aircraft cockpit in-flight, would be catastrophic to the safety of air navigation.

31. There may be some cases where it is proper for a decision maker to provide an expert opinion supporting a decision earlier made by that person and the subject of the proceedings in which that opinion is relied on. This is not such a case. We have the opinions of three well-qualified neurologists to assist us in understanding a neurological question. We do not find Dr Nāvathé's opinion of any assistance.
32. We mention, as well, some further reports where the authors were not called to give evidence.
33. Dr Limberg was the first neurologist to diagnose juvenile myoclonic epilepsy. In her letter of referral to Dr Cameron of 25 July 2007 and in her letter to **CASA** of 13 October 2006[9] she refers to an increased risk of Mr Walker having a fit.
34. We have a number of reports from Dr Cameron. That which descends to the greatest detail is a report of 20 April 2009[10] prepared for the purposes of the earlier application in the Tribunal. Dr Cameron expressed the view that Mr Walker remained at high risk of developing generalised tonic-clonic seizures and other seizure activity.
35. Both of these reports are considerably out of date. Moreover Dr Limberg's report does not attempt to explain the conclusion. Given that we have the benefit of considered and current opinions from a number of neurologists we do not propose to have regard to the earlier expressions of opinion of Dr Limberg and Dr Cameron.
36. We note, for completeness, that **CASA**'s submissions made reference to a June 2006 report of Dr Jayasinghe, said to have been an annexure to a statement of Dr Hastings. It is certainly the case that Dr Hastings' report of 9 June 2013 referred to a 21 June report of Dr Jayasinghe however that report is not an annexure to the copy of Dr Hastings' report in evidence before us nor is it otherwise in the material before us (so far as we can tell). Necessarily, we have not had regard to the views of Dr Jayasinghe, whatever they may be.
37. It is common ground that the feature of juvenile myoclonic epilepsy that must be considered is the potential for Mr Walker to experience a seizure – an absence seizure, a myoclonic seizure or a generalised tonic-clonic seizure – at a time when he is exercising a privilege conferred, or performing a duty imposed, by his licence. We propose to note the evidence of Dr Somerville, Dr Berkovic and Dr O'Brien that deals with the issue.

38. Absence seizures are the most benign of the three categories of seizure that persons with juvenile myoclonic epilepsy might experience although it would be of considerable concern if a pilot experienced an absence seizure. There is no clear evidence that Mr Walker has ever experienced such a seizure. There are notations on clinical notes recording Mr Walker's admission to the Royal Brisbane Hospital in July 2004 that suggest that the treating doctor wondered whether Mr Walker had experienced an absence seizure during the consultation.[11] Despite that, the view of each of Dr Berkovic and Dr Somerville, as well as of Dr Hastings, was that it was unlikely that Mr Walker had experienced absence seizures on that occasion.
39. There is no doubt that Mr Walker has experienced myoclonic seizures. There is some controversy about the first occasion on which Mr Walker experienced a seizure. Mention has already been made of the motorcycle accident in 2002. Dr Somerville has raised the possibility that this event was occasioned by a seizure. There are no contemporaneous medical records of this event which Mr Walker says came about, not because he had a seizure or lost consciousness, but because his vision was obscured by the dust of riders ahead of him. In that he is supported by the evidence of Mr Mark Costin who was present on that occasion. Mr Costin's evidence was not questioned. We consider it quite unlikely that Mr Walker's accident was caused by a seizure. His explanation is far more likely.
40. We proceed then on the basis that the first seizures were myoclonic seizures and occurred in early 2004 associated with fatigue and possibly overuse of alcohol. The submissions for **CASA** [12] refer to an extract of the transcript where Mr Walker was asked whether he had ever experienced myoclonic jerks after a normal night's sleep and is recorded as having said "Yes". Having listened to the recording of the hearing, and on the basis of our own recollections, we can say that the transcript is incorrect and that Mr Walker in fact answered "Never". There is no evidence of seizures (of any type) since 2004.
41. The question whether Mr Walker has ever experienced a tonic-clonic seizure is also controversial. Dr Somerville was of the view that it was "extremely likely" that the July 2004 episode where Mr Walker attended the Royal Brisbane Hospital was a tonic-clonic seizure.[13] On that occasion Mr Walker had been drinking at a social function. He lost consciousness and fell, striking the back of his head. He was taken by ambulance to the Royal Brisbane Hospital. The clinical notes of that hospital described the history on presentation, as recorded by a registered nurse, in these terms,[14]

> *22 year old male brought in by Queensland Ambulance Service post collapse – head injury - small laceration to back of head. Patient has been drinking tonight. Unable to recall full events from tonight. Patient states over past 6 months has had episodes which he describes as small seizures/fits.*

There is a longer history, taken, we infer, by a medical practitioner, on a subsequent page[15] which refers to Mr Walker having become dizzy, fallen backwards and hit his head. A loss of consciousness was noted. He was unable to recall how long he had been unconscious.

42. In the opinion of Dr Somerville, and in the absence of a better explanation (and being drunk was not a better explanation), the fact of Mr Walker having had a blackout that he could not recall made it "extremely likely" that Mr Walker had experienced a tonic-clonic seizure on this occasion.[16] In reaching that view, Dr Somerville relied on his clinical judgment but also took some comfort from results of blood tests taken at the Royal Brisbane Hospital. Those results, he considered, were consistent with the results of persons after seizures.[17] Dr Berkovic considered it unlikely that this incident was a tonic-clonic seizure but "was inclined to give [Mr Walker] the benefit of the doubt". He accepted that Mr Walker may have had a tonic-clonic seizure on this occasion.[18] Dr O'Brien, whilst conceding the possibility, doubted that this episode of Mr Walker losing consciousness amounted to a tonic-clonic seizure.[19] However he also noted that he did not conclude that a person had experienced a seizure

unless he was "convinced it was a seizure". That is undoubtedly a prudent approach in clinical medicine but we need only determine matters fact on the basis of probability.

43. On that basis it seems to us that it was more likely than not that the incident in July 2004 was, as Dr Somerville said, a tonic-clonic seizure. Whilst we recognise the seriousness of the consequence to Mr Walker's desired career we are obliged to regard the safety of air navigation is the most important consideration in determining whether he satisfies the requirements for either a class 1 or a class 2 medical certificate. Dr Berkovic, Dr O'Brien and Dr Somerville are all distinguished medical specialists and all have impressive qualifications to express the opinions they have given. Whilst we have the utmost respect for the professionalism and integrity of Dr Berkovic and Dr O'Brien, they have each been involved in his treatment, and have been his supporters, over a number of years. Dr Somerville, we think, brings a greater degree of detachment and objectivity to the task at hand and for that reason we prefer his opinion to those of Dr Berkovic and Dr O'Brien.
44. The question that then arises is the extent of the risk of Mr Walker experiencing a tonic-clonic seizure in the course of, or incidental to, a flight. We were taken to several scientific papers however there seems to be general agreement that the scientific literature cannot provide even an approximate answer to this question. Dr Berkovic referred to the data as insufficient "to give a precise estimate",[20] Dr Somerville spoke of the literature not providing data specific to Mr Walker's situation[21] as did Dr O'Brien.[22]
45. Dr Berkovic expressed his conclusions in this way,

> *I assume a critical question is whether he has a less than 1% risk of an incapacitating seizure per year, given his clinical circumstances. I emphasise that he has never had an incapacitating seizure and the only reason his epilepsy was discovered was because of the complaint of myoclonic jerks which were confirmed as epileptic by the EEG. He has not had any symptoms in five years of my observation and it is now 10 years since his symptoms first appeared. We know the risk of seizures with this type of epilepsy is highest in teenage and the twenties and diminishes in adult life. I know of no systematic data examining the likelihood of seizures in a young adult with a history of an abnormal EEG on medication in terms of the risk of seizures. My sense is that the risk would be considerably less than 1%, particularly as he is on medication, but this is not based on hard data.*
> *Unfortunately studies in otherwise healthy people in whom abnormal EEGs are detected for purposes of screening for military or other service do not report follow up of such cases but certainly the general impression is that the risk would be extremely low and, particularly if on antiepileptic medication, I would suggest that it begins to approach the risk of the general population.*[23]

That opinion is predicated on the footing that Mr Walker has not experienced a tonic-clonic seizure, a view we are unable to accept.

46. Dr Somerville was asked to comment on Mr Walker's risk of having a generalised tonic-clonic seizure. He said this,[24]

> *The risk of a generalised tonic-clonic seizure. As stated above, Mr Walker has probably already experienced a tonic-clonic seizure. This would substantially increase the risk of further seizures beyond the risk of someone with juvenile myoclonic epilepsy who has never had a tonic-clonic seizure.*
> *It has long been held that JME is a lifelong condition. That is to say, patients do not grow out of it but retain a tendency to*

> *have seizures for the rest of their life. This has been challenged by some recent publications referred to above. However, these studies do not quantify the risk of a generalised tonic-clonic seizure in someone who has hitherto experienced only myoclonic seizures, as may be the case with Mr Walker. One study (Jain 1997) does demonstrate that patients who have had only myoclonic seizures for more than 10 years may still go on to experience generalised tonic-clonic seizures. In the published studies, it is noted that a significant proportion of patients become free of seizures, some of whom are able to discontinue medication. However, even in the most optimistic of these papers, at least one third of patients continued to have seizures. The active EEG would also imply that Mr Walker is still at risk of seizures. In the absence of published evidence, I would estimate that Mr Walker's risk of a generalised tonic-clonic seizure would be at least 5% per year. This is despite his being treated (as were almost all of the patients in the published studies, at least until they had achieved a long seizure-free interval).*

We accept that evidence. On the view we take of the matter Mr Walker is at considerable risk of experiencing a seizure in the future.

47. We then are required to consider whether we are satisfied that Mr Walker's condition i.e. the extent to which he does not meet the medical standard by reason of his epilepsy, is not likely to endanger the safety of air navigation. In *Re Window &* ***CASA*** [25] the Tribunal considered the meaning to be given to "likely" in a similarly expressed provision from the earlier regulatory scheme. After a survey of the authorities the Tribunal concluded:

> *Having regard to the need to protect public safety while having regard to a person's entitlement to pursue his or her ambitions, we consider that the word "likely" means "a substantial or real and not remote chance". That is not a matter which can be assessed on statistical likelihood and certainly does not mean "more likely than not", "odds on" or "a more than 50% chance of a thing happening". To adopt those latter three meanings would, in our view, be to place too little weight on the protection of public safety and too much on an individual's entitlements.*[26]

We respectfully agree. We also agree with the observations of Deputy President Handley, directed to the present regulatory context, in *Re Hall &* ***CASA***,[27] where the Deputy President, after a reference to *Re Window*, said:

> *...the assessment of what is "likely" cannot be based on statistical likelihood. In this context, it is a matter of weighing up the requirements of air safety with the applicant's interest in the safe exercise of the privileges and performance of the duties associated with holding a private pilot's licence.*

48. We have already noted that it takes little imagination to envisage the potential consequences to a pilot's capacity to adequately control an aircraft if subject to seizure symptoms. Nonetheless, we have considerable evidence that deals with those consequences. It is as well to start with Dr Somerville's description of the usual course of a tonic-clonic seizure. He said,[28]

> *Generalised tonic-clonic seizures in JME begin with a rapid succession of generalised jerks over several seconds, with loss of consciousness, followed by stiffening of the trunk and limbs for approximately 20 to 30 seconds, followed by jerking of the body and limbs for a further 30 to 60 seconds. The patient is then sleepy and confused for a few minutes to half an hour. The*

> *episode may be preceded by myoclonic seizures, often beginning on awakening and sometimes occurring in a crescendo prior to the tonic-clonic seizure. However, the patient has no immediate warning and tonic-clonic seizures may occur with no preceding myoclonic seizures.*

Dr Somerville went on to consider the possible consequences of a generalised tonic clonic seizure occurring during flight. Having noted a distinction, drawn in **CASA**'s briefing letter between active and passive incapacitation, he went on to say,[29]

> *I understand active incapacitation to refer to the fact that the movements caused by a seizure might make it difficult for a co-pilot to control the aircraft. This could include extension of the lower limbs onto pedal controls (as can occur when a patient driving a car has a seizure and their foot depresses the accelerator pedal). Following a generalised tonic-clonic seizure, patients are confused and may be restless and combative, particularly if restrained. This "active incapacitation" would be in addition to a loss of consciousness. While I have no training as a pilot, I would imagine that a generalised tonic-clonic seizure would have a very high likelihood of resulting in a crash if flying solo. If it occurred in midflight with a co-pilot, I would imagine the control of the aircraft could be assumed by the co-pilot, although the "active incapacitation" could produce serious challenges. If it occurred during takeoff or landing, then I would imagine that the risk of a crash would be very high. The impact of a myoclonic seizure would be much less, as the duration is extremely short, the movement is much smaller and there is immediate recovery after it. I have not considered absence seizures, as these are extremely unlikely to occur in Mr Walker now if they have not happened already.*

49. We have as well evidence from Mr Ian Banks. Mr Banks is employed by **CASA** as the Manager, Safety Management Systems and Human Factors. He has an air transport pilot licence and considerable experience in military and civilian flying as well as an undergraduate degree, with honours, in psychology. His evidence was not contradicted nor seriously challenged. It is supported by apparently reputable reference material. He deals at length with the potential hazards in a two-pilot setting were one pilot to be incapacitated by, for example, a seizure. He notes,[30]
    46. *The incapacitation of a member of the flight crew of a multi-pilot aircraft automatically reduces the safety margins associated with the operation of that aircraft, because it leaves the remaining fit pilot to perform the work of two pilots.*
    47. *Although airline pilots have some training in detecting and responding to the incapacitation of the other pilot, it is never desirable to be operating a high-capacity aircraft without the minimum crew.*
    48. *Without a functioning pilot, there is a greatly increased risk that the high cockpit work rate encountered in critical phases of flight (such as take-off and landing) in a high capacity aircraft will overwhelm, or sufficiently distract, the remaining pilot such that clinical procedures are not followed or information or other inputs, such as radio transmissions or aircraft system alarms and warnings critical to the safe operation of the aircraft are not detected.*

As it seems to us, the position is potentially more dangerous in a single pilot aircraft.

50. In light of this evidence we are unable to be satisfied that Mr Walker's condition is not likely to endanger the safety of air navigation. **CASA** submits that this conclusion must lead to the result that **CASA** (and the Tribunal in its stead) is bound to refuse to issue a medical certificate. It contends now, contrary to the stance adopted in its original decision, that the power to impose conditions cannot be relied on to alleviate the

consequences of a failure to meet a medical standard. We do not find it necessary to reach a concluded view on the argument because we are satisfied that no condition is capable of adequately reducing the risk to the safety of air navigation.

51. In the result we conclude that, on the material now available to us, the correct or preferable response to Mr Walker's application for the issue of a class 2 medical certificate is that it ought not to have issued as we are satisfied that Mr Walker does not satisfy the requirements of reg 67.180(1) of the CASR. **CASA** submits that we ought give effect to that conclusion by substituting a decision that the certificate issued on 20 December 2012 be revoked. We are unpersuaded that it is within our power to do so. We are reviewing **CASA**'s decision that responded to an application for the issue of a medical certificate. By virtue of reg 67.180 of the CASR, **CASA** was obliged to issue a certificate if satisfied that Mr Walker met the requirements of reg 67.180(2) of the CASR and prohibited from issuing the certificate if, amongst other matters, he did not satisfy those requirements. Accordingly we will set aside **CASA**'s decision of 20 December 2012 and substitute a decision, conforming with the wording of CASR reg 67.180(7), that a medical certificate class 2 not be issued to Mr Walker. It will be for **CASA** to put into effect the necessary administrative steps to give effect to that decision. The decision of 8 April 2013 ought be affirmed.
52. Mr Walker argued that it was not open to the Tribunal to make a decision to refuse him a certificate. He made application to review a decision to impose conditions, not a decision to grant thus, he said, that underlying decision was not the subject matter of these proceedings. We do not agree. **CASA** was dealing with an application for the issue of a medical certificate. It made a decision in response to that application. On the evidence before us its decision was not the correct or preferable decision. Our task is to make that decision in substitution for that made by **CASA**.

Some other matters

53. We have not found it necessary to consider **CASA**'s reliance on s 11 of the Act nor the considerable evidence it presented about the approach that other regulators take to applicants with epilepsy. On the view we take of the matter it is the Australian legislative framework that governs the outcome, not the policy or legislation of another polity.
54. Both parties' submissions made something of the absence of briefing letters to expert witnesses. Both parties attached a briefing letter to the written submissions. We will treat those letters as part of the material before us (and as part of the tender of the respective report).
55. Finally we should say that we have considerable sympathy for Mr Walker however we have been driven to conclude that the safety of air navigation and the application of the facts as found to the legislation dictates this result. Whether, with the effluxion of time, Mr Walker is able to demonstrate that his condition is not likely to endanger the safety of air navigation is a matter for **CASA** on another day.

I certify that the preceding 55 (fifty -five) paragraphs are a true copy of the reasons for the decision herein of Deputy President PE Hack SC, Dr W Isles, Member

.....[Sgd].....
Associate

Dated 28 March 2014

Date(s) of hearing	**13 & 14 November 2013**
Date final submissions received	**20 December 2013**
Counsel for the Applicant	**Mr C McKeown**
Solicitors for the Applicant	**Directly briefed**
Counsel for the Respondent	**Mr IL Harvey**
Solicitors for the Respondent	**CASA Legal Branch**

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[1] See *Re Walker & Civil Aviation Safety Authority* [2009] AATA 674.

[2] See CAR reg 5.04(3).

[3] See CASR reg 67.175.

[4] The date is taken from Exhibit 12, the Applicant's Statement of Facts and Contentions. In the earlier decision, and the date of issue of the student pilot licence is recorded as 5 August 2005: see *Re Walker & **CASA*** [2009] AATA 674 at [14]. Nothing seems to turn on the discrepancy.

[5] [2009] AATA 674.

[6] There had been earlier correspondence concerning medical certificates however that is not presently relevant.

[7] Exhibit 6, pages 4-5.

[8] Exhibit 15, page 13.

[9] Both letters form part of exhibit 23.

[10] Part of exhibit 24.

[11] Exhibit 8, pages 19 and 36.

[12] At paragraph 20.

[13] Exhibit 5, page 4.

[14] Exhibit 8, page 17. We have, where necessary, expanded abbreviations.

[15] Exhibit 8, page 19.

[16] Transcript page 12, lines 37 – 47.

[17] Transcript page 13, lines 11-15.

[18] Transcript page 12, lines 12-14.

[19] Transcript page 51, lines 29 – 35.

[20] Transcript page 12, line 27.

[21] Transcript page 13, line 23.

[22] Transcript page 52, lines 38-39.

[23] Exhibit 1, page 99.

[24] Exhibit 5, page 5.

[25] [1999] AATA 525; (1999) 56 ALD 316.

[26] [1999] AATA 525 at [60].

[27] [2004] AATA 21, at [45].

[28] Exhibit 5, page 4.

[29] Exhibit 5, page 5.

[30] Exhibit 14, page 10.
