

#### 2.6.1 Introduction

This section details the assessment procedures for pilots, other aircrew members and air traffic controllers (ATC) who suffer or who may suffer from psychological disorders or psychiatric disease.

The aim of the psychiatric assessment within the aeromedical examination is to ensure that applicants do not suffer from psychological disorders or psychiatric disease which places them at an increased risk of incapacitation, which may produce a decrement in psychological or higher cortical function, or which may jeopardise the safety of air navigation. A particular concern is the potential for an affected individual to commit an unsafe act that impairs the safe operation of an aircraft.

When conducting the aeromedical examination, the DAME should recognise that an individual who holds an unrestricted medical certificate must be capable of safely performing all the activities and of exercising all the privileges that are permitted under the class of licence held. Such activities (either as a private or a professional pilot) may include flight:

- For prolonged duration, often as part of a shift roster
- In a variety of weather conditions
- Subject to extremes of temperature, humidity, atmospheric pressure, noise, vibration and acceleration
- Reliant on support services (including provision of food and water) of varying quality and reliability
- With little or no medical/health support
- With the potential for an emergency/mass casualty/survival situation to occur with little or no warning
- Subject to disrupted sleep and time zone changes.

A number of these stressors may also affect Air Traffic Controllers.

#### 2.6.2 The Psychiatric Standard – CASR Part 67

[CASR 67](#) The psychiatric standards are found in the following paragraphs of [CASR Part 67](#):

<a href="#">CASR 67.150</a>	For medical standard 1	<a href="#">CASR 67.150(7)</a> <a href="#">Table 67.150</a> 3.4 – 3.6
<a href="#">CASR 67.155</a>	For medical standard 2	<a href="#">CASR 67.155(7)</a> <a href="#">Table 67.155</a> 2.4 – 2.6
<a href="#">CASR 67.160</a>	For medical standard 3	<a href="#">CASR 67.160(7)</a> <a href="#">Table 67.160</a> 3.4 – 3.6

#### 2.6.3 Psychiatric Assessment

All applicants for Australian aviation medical certificates are required to complete a comprehensive screening questionnaire, to be physically examined by a DAME, and to undertake a number of screening tests.

When conducting the psychiatric component of the aeromedical examination, the DAME should note the presence of relevant risk factors for the development of psychiatric disease and the presence of signs and symptoms suggestive or diagnostic of such conditions. (A Generic Template for an Aviation Psychiatric History is being developed to guide the conduct of an aviation medical psychiatric assessment and will be provided in due course.)

For example, risk factors for the development of alcoholism include:

- Family history of alcohol abuse
- Family or work stresses
- Financial pressures
- Single marital status.

Psychometric testing may assist in making a psychiatric diagnosis and referral to a consultant psychiatrist may be indicated to confirm a diagnosis or to resolve concern over a differential diagnosis. CASA may require a pilot or an ATC to be assessed by a consultant psychiatrist as part of its consideration of an applicant's fitness for aeromedical certification.

#### 2.6.4 Documentation of Psychiatric Conditions

Psychiatry is a subjective science. DAMEs need to take a careful and thorough clinical history before reaching a psychiatric diagnosis, particularly a diagnosis that may have significant occupational implications for pilots or ATCs. The [Hints for Detecting Mental Health Problems During Routine Periodic Physical Examinations](#) is provided to assist DAMEs in taking such a history and to bring consistency to their reporting.

In addition to requiring a traditional narrative report of psychiatric illness in aviators, CASA will henceforth require DAMEs and consultants to classify psychiatric conditions in aircrew and ATCs in accordance with the criteria defined in the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM IV). Use of the DSM system will provide CASA with a tool to ensure the uniform assessment of all aircrew and ATCs diagnosed with psychiatric disease and allow CASA to make an informed assessment of the aeromedical risk posed by a particular applicant with a psychiatric condition.

DSM IV categorises psychiatric disorders and disease along several axes:

Axis I - Clinical syndromes

Axis II - Developmental Disorders/Personality Disorders

Axis III - Physical Disorders and Conditions

Axis IV - Severity of Psychosocial Stressors

Axis V - Global Assessment of Function<sup>1</sup>.

The first three axes constitute the diagnostic assessment of a patient with a psychiatric condition. Conditions in Axis I (and to a lesser extent Axis II) are those most likely to be of aeromedical concern in the flying safety context. Axis III permits the clinician to indicate any current physical disorder or condition that is potentially relevant to the understanding or management of the case. (These are disorders or conditions listed outside the mental disease section of ICD 10).



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<sup>1</sup> CASA does not require an Axis V assessment. An amended assessment scale for assessing function in Aviators is under consideration.

Axis IV provides a scale for coding the overall severity of the psychosocial stressor(s) acting upon the patient that have occurred in the year preceding the current evaluation and that may have contributed to the development, recurrence or exacerbation of a mental disorder. The rating of severity of the stressor should be based on the clinician's assessment of the stress an "average" person in similar circumstances and with similar socio-cultural values would experience from the particular stressor(s). Clinicians should also make an assessment as to whether the stressors are acute (less than 6 months) or enduring (greater than 6 months).

Axis V permits the clinician to indicate an overall judgement of a person's psychological, social and occupational functioning (as an aviator or ATC) on a scale that assesses mental health-illness. Two ratings should be made using this scale; the first an assessment of current function and the second an assessment of best function during the preceding 12 months.

Thus, for example, a DAME reporting on an airman with psychiatric illness may summarise his condition as follows (in addition to providing a narrative of the situation):

Axis I: Major depression: single episode, severe, without psychotic features  
Alcohol dependence

Axis II: Dependent personality disorder

Axis III: Alcoholic cirrhosis of liver

Axis IV: Stressors: anticipated retirement; grounded by company; change of residence; loss of contact with friends

Axis V: (Not required by CASA at present.)

#### 2.6.5 Disorders Diagnosed in Childhood

##### *Mental Retardation*

This disorder is characterised by significantly sub-average intellectual function with concurrent deficit or impairment in adaptive functioning. Onset is before the age of 18 years. Where the results of standardised, individually administered intelligence tests indicate significant reduction in an applicant's intellectual performance likely to limit the individual's ability to control an aircraft and where clinical assessment indicates a deficit in adaptive behaviour, CASA will not issue a medical certificate.

##### *Learning Disorders*

Learning disorders are diagnosed when an individual's achievement on individually administered, standardised tests in reading, mathematics or written expression are substantially below that expected for age, schooling and level of intelligence and when such deficits interfere with academic achievement or activities which require such skills. CASA will not issue a medical certificate to an applicant who has a learning disorder that precludes the acquisition of knowledge and information essential to safe flight.

##### *Motor Skills Disorders*

The essential feature of this group of disorders is a marked impairment in the development of motor coordination sufficient to interfere with academic achievement or activities of daily living. Recognition of this disorder usually occurs in childhood. Clinical course is variable, and in some cases, lack of coordination continues through adolescence into adulthood. In general, CASA will not issue a medical certificate to an applicant who suffers an impairment of motor skill sufficiently severe to threaten the safety of flight.

##### *Communication Disorders*

CASA will not usually issue a medical certificate to an applicant who suffers a communication disorder severe enough to compromise effective communication in the aviation environment. Practical testing may be required to establish the effectiveness of an applicant's communication abilities.



#### *Pervasive Development Disorders*

These disorders are characterised by severe and pervasive impairment in several areas of development relative to an individual's developmental level or mental age. Autistic Disorder is the commonest of these disorders. The essential features of an individual with this disorder are impairment in reciprocal social interaction (which is gross and sustained), impairment in communication skills and markedly restricted repertoire of activity and interests. The symptoms and characteristics of autism can present in a wide variety of combinations, from mild to severe.

Other conditions in this group include Rett's Disorder, Asperger's Disorder and Childhood Disintegrative Disorder.

Sufferers of disorders in this group will usually be precluded from holding CASA medical certification.

#### *Attention Deficit/Hyperactivity Disorder (ADD/ADHD) and Disruptive Behaviour Disorders*

This disorder is amongst the most common neuro-developmental disorders found in children. Its hallmarks are hyperactivity, impulsiveness and inattention beyond the norm for a child's age. There may be wide variations apparent in the severity of this disorder. Other psychiatric conditions frequently co-exist in children suffering ADD/ADHD. While the diagnosis is reliable if made to the criteria outlined in DSM IV, concerns over the validity of the diagnosis in a particular individual are frequently expressed. Sufferers of ADHD/ADD are significantly more likely to be involved in motor vehicle and industrial accidents (whether on pharmacological treatment or not) than similar groups of individuals who do not suffer from this condition(s).

Aeromedical concerns relate to the capacity of a sufferer of ADD/ADHD to safely control an aircraft and to the potential adverse effects of amphetamine medications frequently utilised to treat this condition. To consider an application for aeromedical certification from a sufferer of ADD/ADHD, CASA requires a thorough assessment of the applicant by a consultant psychiatrist (to confirm the diagnosis against the criteria indicated in DSM IV and exclude other conditions) and the results of neuropsychological testing. Where evidence exists of persisting deficiencies in cognitive ability, behavioural aberrancy or where an applicant requires continued use of amphetamine medication, the applicant will not be aeromedically certificated.

Refer to the [Criteria for the Diagnosis of ADD/ADHD](#).



#### *Conduct Disorder (Antisocial Personality Disorder of Childhood)*

The essential feature of conduct disorder is a repetitive and persistent pattern of behaviour in which the basic rights of others or major societal norms or rules are violated. CASA will not usually consider certification for a medical certificate to an applicant with a substantiated history of conduct disorder.

#### *Oppositional Defiant Disorder*

The major feature of this condition is a recurrent pattern of negativistic, defiant, disobedient or hostile behaviour towards authority figures that often develops gradually in childhood and may continue into adolescence and even into adulthood. CASA will not usually consider medical certification for an applicant with a substantiated history of oppositional defiant disorder.

#### *Tic Disorders*

A tic is a sudden, rapid, recurrent, non-rhythmic, stereotyped motor movement or vocalisation. Tics may be simple or complex, may exist in isolation or be part of a condition such as Tourette's Syndrome. Where an applicant's tic is believed to have implications for the safety of air navigation, CASA will not issue a medical certificate. Sufferers of Tourette's Syndrome will usually be precluded from holding medical certification.



#### 2.6.6 Delirium and Dementia

##### *Delirium*

Delirium is a disturbance of consciousness, accompanied by a change in cognition that is not due to pre-existing or evolving dementia. The disturbance generally develops over a short period, and often fluctuates during the course of a day. There is generally evidence from the clinical assessment of the aetiology of the delirium which may be due to a general medical condition, substance intoxication/withdrawal, use of medication, toxin exposure or a combination of these factors.

Aviators and ATCs with acute delirium should immediately be stood down/stand down from flying or controlling duty. CASA will only consider aeromedical certification once the applicant has recovered from the delirious state, and the underlying cause of the delirium has been identified and remedied.

##### *Dementia*

Dementias are characterised by the development of multiple cognitive deficits (including memory impairment and one or more of the following cognitive disturbances: aphasia, apraxia, agnosia, or a disturbance of executive functioning). While dementias share a common symptom presentation they may be differentiated on the basis of aetiology.

It may be difficult to make a diagnosis of early dementia in an individual who has enjoyed a well paid and responsible position in the aviation community for many years, but who is finding it impossible to learn new skills and to retain them (e.g. changing aircraft type). Anxiety or mood disorders may co-exist. Sympathetic handling and possibly psychological evaluation may prove helpful and the latter may be necessary to exclude or establish a diagnosis of pre-senile dementia. In such cases the decision about medical certificate revalidation will need to be based upon a very careful evaluation of all clinical and occupational information.

Once an applicant demonstrates a significant impairment of memory and other cognition, he/she should refrain from exercising the privileges of the pilot or ATC licence. CASA will not usually issue an aviation medical certificate to a sufferer of dementia

#### 2.6.7 Mental Disorders due to medical conditions not classified elsewhere

Reserved.

#### 2.6.8 Substance Related Disorders

This group of disorders includes disorders related to the problematic use of a drug, including non-prescription medications, prescribed medications and drugs of abuse (e.g. alcohol, cocaine), other substances (e.g. volatile solvents) and to toxin exposure. For CASA purposes, this classification does not include nicotine abuse disorder. Some prescription drugs, whilst legally prescribable, are inappropriate when used by pilots or ATCs in the aviation environment (e.g. MS Contin). The safety of medications is dealt with in Section [2.13 Medication – Drugs and Flying/Controlling](#). The substance related disorders are divided into two major categories: the substance use disorders (abuse and dependence) and the substance induced disorders (substance induced intoxication, withdrawal, delirium, dementia, amnesia, psychosis, anxiety, mood, sexual dysfunction and sleep disorders). CASA will not usually issue an aviation medical certificate to a pilot or ATC who suffers a substance abuse disorder or who is involved in the problematic use of drugs.

##### *Drug Testing*

Current CASA practice is to ask all applicants for aeromedical certification (original and renewal), about possible problematic use of drugs and substances. DAMEs should also look for evidence of drug or substance use/abuse in their assessment of applicants.

Applicants who admit to the problematic use of drugs/substances or whom the DAME suspects of drug/substance abuse on the basis of other history or examination findings are required to submit a urine sample for drug screening. Urine samples for drug testing purposes should be provided as part of and at the time of the DAME medical certificate examination and should be passed under the direct supervision of the DAME. The sample should then be split into two clean containers and each sealed, the applicant being offered his/her choice of samples for independent testing. The other sample is to be forwarded to the testing pathology laboratory by the DAME. (Under no circumstances is this sample to be given to the applicant). Urine drug testing required by CASA is to be undertaken at the applicant's expense.

As a minimum, urine samples should be tested for the following groups of drugs: cannabinoids, amphetamines, cocaine analogues, hallucinogens, opiates, sedatives and phencyclidine analogues. In addition, the requesting DAME should request testing for any other drug/substance that he/she suspects that the applicant may be using/abusing.

Any applicant who returns a positive urine drug screen and thus confirms his/her problematic use of drugs/substances does not meet the relevant medical standard. CASA will not issue a medical certificate unless an explanation acceptable to CASA is provided.

#### *Alcohol Abuse/Alcoholism*

A number of alcohol related syndromes are described:

- **Acute intoxication** with alcohol is a concern in the aviation workplace by virtue of the way in which it impairs psychomotor performance that may potentially lead to accidents and injury. The potential for catastrophic outcomes in the aviation environment arguably render it impossible to consider any episode of acute intoxication in a pilot on duty as “uncomplicated”. Current CARs provide specific requirements on “bottle to throttle time” for pilots and ATCS and it is intended that the new CASRs, when published, will limit the blood alcohol concentration of pilots and ATCs.
- **Harmful use of alcohol** is associated with damage to the physical or mental health of the individual; in the absence of a diagnosis of the alcohol dependence syndrome. Certain specific and severe consequences of alcohol misuse may also be diagnosed separately – notably alcoholic hallucinosis, Korsakoff’s psychosis and alcoholic dementia.
- The **alcohol dependence syndrome** is a cluster of biological, psychological and social phenomena that may be diagnosed where three or more of the following features are identified during the preceding year:
  - A strong desire/compulsion to drink
  - Difficulties in controlling drinking
  - A physiological withdrawal syndrome associated with abstinence
  - Increased tolerance to alcohol
  - Neglect of other activities due to drinking
  - Persistence of drinking despite harmful consequences.
- **Alcohol withdrawal** is associated with mild to severe symptoms, including sweating, nausea, tremor and anxiety. However, it may be associated with serious complications, including convulsions or delirium (“delirium tremens”).
- An isolated **drink driving offence** does not fulfil ICD-10 criteria for harmful use of alcohol (although it does fulfil DSM-IV criteria for alcohol abuse) and CASA will generally not take action in response to a single episode of PCA. However, such offences do indicate an increased probability that other alcohol related problems might be identified, and this probability increases still further where there have been multiple drink-driving offences committed.

**Note:** The FAA prohibits the medical certification of pilots who are convicted of two or more drink-driving offences within a 3-year period.



#### Medical Assessment

The experience of certain major airlines and licensing authorities is that success in rehabilitation of the alcohol dependent pilot can best be achieved by early intervention and treatment, adhering to the strict protocol outlined below. By using this program it has been possible to return aircrew to active flying within four months.

- **Immediate action.** A pilot or air traffic controller must be assessed as temporarily unfit on reasonable suspicion of:
  - intoxication whilst on duty
  - harmful use of alcohol
  - alcohol dependence
  - other alcohol related problems.

Such an assessment may be taken by the airline's own medical officer, by the DAME or by CASA, or by a member of flight crew or operations staff.

Where a pilot is thought to be intoxicated whilst on duty, particular care and sensitivity are required and the specific action taken may depend, in part, upon the company drug and alcohol policy. However, where possible, it is important to obtain an objective assessment of the alleged intoxication at the earliest opportunity. This might involve use of a breath alcoholmeter, a blood alcohol analysis or urinary drug testing. Such procedures may only be conducted with the patient's consent. Given that blood alcohol concentration falls fairly rapidly with abstinence, such testing should be conducted as soon as possible. Refusal of testing, and any reasons given for this, should also be recorded carefully. A period of less than 4 hours between detection and testing is considered usual.

- **Treatment and rehabilitation.** If psychiatric opinion and examination confirm "alcohol abuse with or without dependency", then a residential in-patient program is a mandatory requirement if revalidation is to be considered. The treatment program undertaken should be directed by the treating psychiatrist and may or may not include pharmacotherapy.

Where the diagnosis is considered not to constitute "alcohol abuse with or without dependency" but where there is still a degree of concern regarding an alcohol related matter, then a less intensive treatment may be indicated. For example, such treatment may comprise a day-patient program, or outpatient counselling. The circumstances in which this may be offered must be a matter of judgement. (Arguably, heavy drinking as a cause of an elevated GGT or hypertension, but without any other complications or problems, might be an example of such circumstances.)



- **Follow-up and monitoring.** DAMEs or CASA should be advised as soon as treatment is considered necessary so that follow-up review may be arranged to commence immediately following discharge from in-patient care. The patient should be reviewed immediately after discharge from in-patient care and on-going review should be at 3 monthly intervals (or more frequently if indicated) for at least 2 years, and less frequently thereafter. Overall monitoring should continue for not less than 3 years and in most cases will continue virtually indefinitely, or until the pilot retires. This is because of the significant risk of relapse, which continues for many years following treatment. Review will require supportive, corroborative evidence of continuing abstinence from the family, the family doctor and from others in close contact at home or in the workplace. At each review blood tests should be repeated as support for the monitoring process (see above).

Continued attendance at Alcoholics Anonymous or an equivalent organisation is required in most cases. It is also desirable that a peer group member on the same aircraft fleet should act as a “buddy” to supervise the individual’s progress and report to the relevant authority at intervals.

- **Treatment goals.** Total abstinence will usually be the only acceptable treatment goal. For less serious cases (e.g. an elevated GGT with no other evidence of problems arising from alcohol consumption), an attempt at controlling drinking may be allowed, and in such circumstances in-patient treatment will not be required. However, this will be the exception rather than the rule and, in cases of doubt, in-patient treatment and abstinence should both be considered essential for recertification.
- **Certification.** At the end of the first four months of treatment, and provided that abstinence is secure, the pilot may be allowed to resume his/her flying role but only in a multicrew capacity. A period of at least two years multicrew limitation will be required, assuming good progress, before solo operations will be authorised. Failure to enter the program or to maintain the protocol will lead to continued suspension of the medical certificate.
- **Recidivism.** Recidivists will usually be disqualified from holding an aviation medical certificate and will not be considered for further certification.



#### *Reinstatement of Aeromedical Certification*

Applicants who are disqualified from holding an aviation medical certificate as a result of problematic use of drugs/substances (including alcohol) may subsequently be certified at any class provided they meet the following requirements:

- a. The applicant completes a detoxification program (if relevant to the management of the drug/substance condition—eg, alcoholism)
- b. The psychiatrist/drug rehabilitation specialist managing the applicant's case assesses the applicant and provides a report confirming the applicant's abstinence and prognosis
- c. The applicant enters a program of random drug testing/performance assessment at the direction of CASA to confirm continued abstinence.
- d. The applicant enters an appropriate peer support program
- e. The applicant is regularly reviewed by a psychiatrist/substance abuse specialist and a report is provided to CASA 6 monthly (in the first year).

Applicants will not usually be granted medical certification within 12 months of diagnosis/disqualification for substance abuse. Applicants who have been treated for alcohol related conditions may be considered for medical certification 4 months after detoxification is complete.

#### *Recidivism*

Recidivists will usually be disqualified from holding an aviation medical certificate and will not be considered for further certification.

#### 2.6.9 Schizophrenia and Psychotic Disorders

These disorders are grouped together as they frequently include psychotic symptoms as a prominent aspect of their presentation (“psychotic” refers to an “inability to test reality” as evidenced by the presence of delusions, prominent hallucinations, disorganised speech, disorganised or catatonic behaviour).

An established history of schizophrenia or psychotic disorder is an absolute contraindication to aeromedical certification of pilots and ATCs. Occasionally aircrew who can unequivocally be established to have experienced a temporary psychotic episode which, has ceased and is reasonably expected never to recur (e.g. psychosis secondary to an organic, toxic or metabolic cause) may be considered for certification. In such cases, certification will be based on psychiatric and other expert advice on the risk of recurrence.

Applicants and licence holders rarely inform CASA when they are diagnosed with schizophrenia or other psychotic illnesses. Such individuals may have little insight into their illness and may attempt to continue flying/controlling. DAMEs and other medical practitioners who are aware of a patient who holds a pilot or ATC licence and who is suffering from a psychotic illness should **immediately** notify CASA’s Aviation Medicine Section and, where appropriate, notify the medical certificate holder that this is being done. While this may be personally difficult, the risk posed to the safety of the public as well as to the individual by a psychotic medical certificate holder or applicant is such that notification of CASA is entirely appropriate. The Civil Aviation Regulations and the Civil Aviation Safety Regulations indemnify any medical practitioner who acts in good faith in such circumstances.

#### 2.6.10 Mood Disorders

##### *Major Depression*

Major depressive disorder is characterised by a clinical course involving one or more episodes of major depression without a history of manic, mixed or hypomanic episodes. Major depressive disorder may have an extremely variable course with some patients experiencing episodes of severe depression separated by long periods without depressive symptoms of any sort, while other patients are entirely debilitated by their almost unrelenting condition. At least 60% of individuals who have a single episode of severe depression will experience further episodes, and 90% of individuals who have had three episodes of severe depression will have subsequent episodes. A significant aeromedical concern is the high mortality associated with this condition, as up to 15% of patients with major depression die by suicide.

However, major depression is also commonly relatively mild in its manifestation and readily treated. Assessment of the aviation risk is thus problematic and is based on considerations such as the worst state the patient has experienced during an episode and the suicide/homicide risk during their worst state. The presence of a significant risk at any time during the course of a depressive illness will be disqualifying for pilots and ATCs. A specialist psychiatric opinion should be sought in any case where there is uncertainty about patient status.

##### *Bipolar I Disorder (Mania with/without Major Depression)*

The essential feature of this disorder is a clinical course characterised by the occurrence of one or more manic episodes or mixed episodes. More than 90% of individuals who have an episode of mania will go on to have future episodes. Such individuals frequently suffer one or more episodes of major depression or other psychiatric co-morbidities. Completed suicide occurs in 10-15% of such patients.

Bipolar disorder is disqualifying for pilots and ATCs.

##### *Bipolar II Disorder (Hypomania with Major Depression)*

The essential feature of this disorder is a clinical course characterised by the occurrence of one or more major depressive episodes accompanied by at least one hypomanic episode.

Bipolar disorder is disqualifying for pilots and ATCs.



#### *Cyclothymic Disorder (Numerous Brief Episodes of Hypomania and Minor Depression)*

The essential feature of cyclothymic disorder is a chronic fluctuating mood disturbance involving numerous periods of hypomanic symptoms and numerous episodes of depressive symptoms over a period of years (where neither hypomanic nor depressive symptoms are severe or prolonged enough to meet diagnostic criteria for a manic depressive episode). Cyclothymic disorder usually begins insidiously in adolescence and has a chronic indolent course into adulthood. Approximately 15% of sufferers will subsequently develop Bipolar I or II disorder.

#### *Dysthymic Disorder (Prolonged Minor Depression without Mania/Hypomania)*

The essential feature of dysthymic disorder is a chronically depressed mood that occurs on most days for several years. Affected individuals describe themselves as being chronically sad or “down in the dumps”. During periods of depressed mood, additional symptoms of depressed appetite, sleep disturbance, low energy levels, low self-esteem, poor concentration and feelings of helplessness may be present. Up to 75% of patients with dysthymic disorder will develop major depression within 5 years.

Pilots and Air Traffic Controllers with dysthymic disorder will not be certificated while they are symptomatic. On remission of symptoms, successfully treated applicants with a good prognosis may be certificated on the basis of a report from a consultant psychiatrist that indicates that the applicant is in remission and at low risk of behaviour that may compromise aviation safety.



#### *Use of Antidepressant Medication by Depressed Pilots and Air Traffic Controllers*

CASA may, on a case-by-case basis, certificate applicants who are prescribed (and are taking) the antidepressant medications Sertraline, Citalopram and Venlafaxine as treatment for their depression. CASA is reviewing the antidepressant Moclobemide for possible approval for use by aviators and ATCs. An “as or with co-pilot” or “with direct air traffic controller supervision” condition, as appropriate, may be imposed. Pilots and ATCs taking other types of anti-depressants will not usually be considered for certification. CASA certification of pilots and ATCs taking CASA authorised medications is conditional on:

- Such applicants being under the care of a medical practitioner experienced in the management of depression—the applicant must:
  - Be stable on an established and appropriate dose of medication for at least four weeks before returning to flying/ATC duties and exhibiting:
    - Minimal acceptable side-effects
    - No drug interactions or allergies
  - Be subject to clinical review monthly or more often, with progress reports to CASA at 6 monthly intervals (for at least the first year). The applicant may be involved in other concurrent treatment (e.g. psychotherapy).
  - Have an absence of other significant psychiatric co-morbidities
  - Have no other psychoactive medications
  - Have precipitating factors removed/controlled.
- Symptoms of depression being well controlled, without evidence of psychomotor retardation
- An absence of suicidal ideation or intent
- An absence of features of arousal (e.g. irritability or anger)
- The presence of a normal sleep pattern.

Pilots or ATCs authorised to fly or perform duties when taking Selective Serotonin Re-uptake Inhibitor (SSRI) or related antidepressant medications must cease exercising the privileges of their licences if their antidepressant medication is altered or the dose changed. Their supervising medical practitioner may return them to duty when they are assessed as stable and without unacceptable side effects.

Pilots and ATCs whose medication is being reduced must cease exercising the privileges of their licences for the entire period during which they are weaned off medication plus an additional period of two weeks. Their supervising medical practitioner may return them to duty when they are assessed as stable and without unacceptable side effects.

#### 2.6.11 Anxiety Disorders

DSM IV has eliminated the term neurosis, and dispersed the diagnoses from this former category of disorders amongst four other headings:

- Mood disorders
- Anxiety disorders
- Somatoform disorders
- Dissociative disorders.

Because panic attacks and agoraphobia may occur in the context of any anxiety disorder as well as in association with other mental disorders, they are defined separately hereunder.

##### *Panic attacks*

Panic attacks are discrete episodes in which an individual experiences a sudden onset of intense apprehension, fearfulness or terror, often associated with feelings of impending doom. During these episodes, symptoms such as shortness of breath, palpitations, chest pain or discomfort, choking/smothering sensations, and fear of “going crazy” or losing control may be present. Attacks occur suddenly, may be unpredictable and usually build to a maximum within 10-15 minutes. CASA will not usually grant aeromedical certification to an individual who suffers non-specific or unpredictable panic attacks.

##### *Agoraphobia*

The essential feature of agoraphobia is extreme anxiety about being in places or situations from which escape may be difficult (or embarrassing) or in which help may not be available in the event of having a panic attack. The anxiety typically leads to a pervasive avoidance of a variety of situations. Such avoidance may impair an individual's ability to work or to carry out other responsibilities. CASA may grant aeromedical certification where an applicant's agoraphobia is unrelated to the aviation environment or unlikely to affect aviation safety adversely.

##### *Specific Phobia*

The essential feature of this disorder is a marked and persistent fear of clearly discernible, circumscribed objects or situations. Exposure to the phobic stimulus almost invariably provokes an immediate anxiety response. CASA may grant aeromedical certification where an applicant's specific phobia is unrelated to the aviation environment or is unlikely to affect aviation safety adversely.



#### *Social Phobia (Fear of Embarrassment)*

This condition is marked by a significant and persistent fear of social or performance situations in which embarrassment may occur. Exposure to such situations almost invariably provokes an immediate anxiety response and may reduce an affected individual's ability to function in social and occupational circumstances. Most sufferers of this condition avoid these social/performance situations but some may endure such situations with dread. CASA will not usually grant aeromedical certification to an individual who suffers from non-specific or unpredictable social phobias.

#### *Obsessive-compulsive Disorder (Obsessive Thoughts and Compulsive Rituals)*

Obsessions are persistent ideas, thoughts, impulses or images that are experienced as intrusive and inappropriate and that cause marked anxiety or distress. Compulsions are repetitive behaviours or mental acts whose goal is to prevent or reduce anxiety or distress. In most cases, an individual with a compulsion feels driven to perform a compulsion to reduce the distress that accompanies the obsession or to prevent some dreaded event or situation. Eventually, the sufferer recognizes that the obsession or compulsion is excessive or unreasonable but feels powerless to prevent it. These disorders may cause marked distress, be extremely time consuming or significantly interfere with an individual's normal social or occupational circumstances. CASA will not usually grant aeromedical certification to an individual who suffers from obsessive-compulsive disorder.

#### *Post-traumatic Stress Disorder (Non-acute Psychological Consequences of Previous Trauma)*

The essential feature of Post-Traumatic Stress Disorder (PTSD) is the development of characteristic symptoms following exposure to an extremely traumatic stressor. Such stressors include a personal near death experience, witnessing the severe injury or death of another or the violent or unexpected death of a family member. An individual's response must involve intense fear, helplessness, or horror. The characteristic symptoms resulting from exposure to the extreme stressor include persistent re-experiencing of the trauma, avoidance of the stimuli associated with the trauma, numbing of general responsiveness and persistent symptoms of increased arousal. PTSD can occur at any age and symptoms generally begin within 3 months of the precipitating event. CASA will not usually grant aeromedical certification to an individual who is suffering from acute symptoms of PTSD. Certification may be considered once an individual's symptoms are controlled and the applicant is considered to pose no threat to the safety of air navigation.



#### *Acute Stress Disorder*

This condition is characterised by the development of anxiety, dissociative or other psychological symptoms within one month of exposure to an extremely traumatic stressor. Generally symptoms of acute stress disorder begin shortly after exposure to the stressor, peak after 2-5 days, and resolve within a month (otherwise the diagnosis should be changed). CASA will not usually grant aeromedical certification while individual is experiencing an acute stress reaction. Once the condition has resolved, return to flying or ATC duties is likely.

#### *Generalised Anxiety Disorder*

In this disorder an individual is afflicted by excessive anxiety about a number of events or activities. The symptoms occur on the majority of days and the individual finds it difficult to control the symptoms. The anxiety and worry are accompanied by one or more of the following:

- Restlessness
- Easy fatigability
- Difficulty concentrating
- Irritability
- Muscle tension
- Disturbed sleep.

Many individuals suffering generalised anxiety disorder report they have been nervous and anxious all of their lives. The clinical course is chronic and fluctuating. CASA will not usually grant aeromedical certification to an individual who suffers from this condition.

#### 2.6.12 Somatoform Disorders

The common feature of this group of disorders is the presence of physical symptoms that suggest an underlying physical condition, but are not explained by that medical condition. The symptoms cause clinically significant distress or impairment in social, occupational or other areas of functioning and are not intentional.

##### *Somatization Disorder*

In somatization disorder, the patient experiences multiple symptoms including pain, gastrointestinal symptoms, sexual dysfunction and pseudo-neurological symptoms over several years. Characteristically, this disorder begins before the age of 30 and has a chronic fluctuating course that rarely remits completely. CASA will not usually grant aeromedical certification to an individual who suffers from this condition.

##### *Undifferentiated Somatoform Disorder*

The essential feature of this disorder is the presence of one or more physical complaints that persist for six months or longer. Symptoms include chronic fatigue, loss of appetite, gastrointestinal or genitourinary symptoms. CASA will not usually grant aeromedical certification to an individual who suffers from this condition.

##### *Conversion Disorder*

This disorder involves unexplained symptoms or deficits affecting voluntary motor or sensory function suggesting a neurological or other general medical condition. Psychological factors are judged to be associated with the symptoms or deficits. CASA will not usually grant aeromedical certification to an individual who suffers from this condition.

##### *Pain Disorder*

In pain disorder, the predominant focus of clinical attention is pain. Psychological factors have an important role in the severity, exacerbation or maintenance of this disorder. CASA will not usually grant aeromedical certification to an individual who suffers from this condition.

##### *Hypochondriasis*

This condition is the preoccupation with the fear of having, or the idea that one has, a serious disease based on a patient's misinterpretation of bodily symptoms or functions. CASA will not usually grant aeromedical certification to an individual who suffers from this condition.



#### *Body Dysmorphic Disorder*

This condition is the preoccupation with an imagined or exaggerated defect in physical appearance (in contrast to anorexia and bulimia where the morbid focus is on body weight). CASA will not usually grant aeromedical certification to an individual who suffers from this condition.

#### **2.6.13 Factitious Disorders**

Factitious disorders are characterised by physical or psychological symptoms that are intentionally produced or feigned in order to assume a "sick role". In contrast to malingering, the motivation of sufferers of factitious disorders is psychological and there is an absence of external incentive for the behaviour. Other psychiatric co-morbidities are frequently present. CASA will not usually grant aeromedical certification to an individual who suffers from this condition.

#### **2.6.14 Dissociative Disorders**

The essential feature of this group of disorders is a disruption in the integrated functions of consciousness, memory, identity or perception. The disturbance may be sudden or gradual in onset, and may be transient or chronic. Dissociative amnesia, dissociative fugue, dissociative identity disorder, and depersonalisation disorder are included in this group of disorders. CASA will not usually grant aeromedical certification to an individual who suffers from these conditions. Aeromedical certification may be considered should the condition resolve.

#### 2.6.15 Sexual and Gender Identity Disorders

##### *Sexual Dysfunctions*

This group of disorders is characterised by disturbance in sexual desire and in the psychophysiological changes that characterise the normal human sexual response. They may cause marked distress and interpersonal difficulty. In general, these disorders are not of aeromedical concern unless the associated psychological distress intrudes on an individual's ability safely to control and aircraft or perform duty as an ATC.

##### *Paraphilias*

The essential feature of this group of conditions is recurrent, intense, sexually arousing fantasies, sexual urges or behaviours involving non-human objects, the suffering of oneself/others, or the non-consensual participation of others in such activities. Affected individuals are rarely self referred and usually come to attention when their behaviour has brought them into conflict with their sexual partners, society, or has reduced on their social, occupational or other areas of functioning.

Affected applicants will not usually be aeromedically certificated until the issues that brought them to attention have been resolved. Successfully treated applicants with a good prognosis may be certificated on the basis of a report from a consultant psychiatrist which indicates that the applicant is in remission and at low risk of behaviour which may compromise aviation safety.

##### *Gender Identity Disorders*

Patients with gender identity disorder experience strong and persistent cross-gender identification and a persistent discomfort about their assigned sex. The diagnosis depends on evidence of clinically significant distress or impairment in social, occupational or other areas of functioning.

Affected applicants will not usually be aeromedically certificated until the source of the distress or impairment is dealt with, and if appropriate, gender reassignment has been completed. Successfully treated applicants with a good prognosis may be certified on the basis of a report from a consultant psychiatrist which indicates that the applicant is in remission and at low risk of behaviour which may compromise aviation safety.

#### 2.6.16 Eating Disorders

##### *Anorexia Nervosa*

The essential features of this condition are refusal to maintain a minimally normal body weight, intense fear of gaining weight, and significant disturbance in perception of shape/size of the body. Restrictive and binge/purging subtypes of this condition are identified. Many persons with anorexia nervosa exhibit depressive symptoms, others may be obsessive-compulsive, while others may have feelings of ineffectiveness, a strong desire to control the environment, inflexible thinking, limited social spontaneity, perfectionism, restrained initiative and depressed emotional expression. While some persons recover from anorexia completely, others have a relapsing course and the overall mortality of this condition approaches 10%.

CASA will not usually aeromedically certificate applicants who are actively anorexic. Successfully treated applicants with a good prognosis may be certified on the basis of a report from a consultant psychiatrist which indicates that the applicant is in remission and at low risk of behaviour which may compromise aviation safety.

##### *Bulimia Nervosa*

The essential features of this condition are binge eating and use of inappropriate compensatory methods to prevent weight gain. Persons with bulimia also place an excessive emphasis on their body shape. They are frequently depressed or suffer mood disorders and many also meet the criteria for the diagnosis of personality disorder. The lifetime prevalence of substance abuse disorders involving alcohol or stimulants is at least 30% among persons with bulimia.

CASA will not usually aeromedically certificate applicants while they are actively bulimic. Successfully treated applicants with a good prognosis may be certified on the basis of a report from a consultant psychiatrist which indicates that the applicant is in remission and at low risk of behaviour which may compromise aviation safety.

#### 2.6.17 Sleep Disorders

##### *Primary Sleep Disorders*

This group of disorders includes the dyssomnias (including insomnia, hypersomnia and narcolepsy which are characterised by abnormalities in the amount, quality or timing of sleep) and the parasomnias (characterised by abnormal behavioural or physiological events occurring in association with sleep). Of primary aeromedical concern is the failure of sufferers from these conditions to gain sufficient restorative sleep to ensure optimum alertness and cognitive function when performing duties as pilots and ATCs. Applicants for aeromedical certification will only be considered if studies confirm normal alertness during waking hours (with or without treatment). (Also see Section [2.3 Medical Aspects – Respiratory Disease](#).)

#### 2.6.18 Impulse Control Disorders

The essential feature of impulse control disorders is failure to resist an impulse, drive, or temptation to perform an act that is harmful to the person or to others. CASA will not usually grant aeromedical certification to individuals who are diagnosed as suffering from such disorders.

#### 2.6.19 Adjustment Disorders

An adjustment disorder may be identified when a person, within three months of an event or stress, develops clinically significant emotional or behavioural symptoms. Such symptoms are either greater than would be generally expected, given the nature of the stressor, or lead to significant impairment in social, educational or occupational function. Stressors may be single or multiple, recurrent or continuous, and may affect either a single person or a group. Patients with adjustment disorders may experience symptoms of depression, anxiety, or may manifest disturbances of conduct. Adjustment disorders generally have a good prognosis and usually remit within six months of the stressor or its consequences ceasing.

Pilots or ATCs should not exercise the privileges of a licence whilst suffering symptoms of an acute adjustment disorder. In some cases, a medical certificate may be suspended. Once psychiatric opinion confirms that the symptoms associated with the adjustment reaction have abated and the acute stressor has been removed or overcome, CASA will usually issue an unrestricted medical certificate.

#### *Personality Disorders*

Personality disorders are characterised by enduring patterns of thought and behaviour that deviate markedly from the expectations of a person's culture. These patterns, which usually begin in adolescence or early childhood, are pervasive, frequently inflexible, stable over time and cause distress, social impairment and often occupational difficulties. A number of specific personality disorders are identified including: antisocial personality disorder; (impulsive, aggressive, manipulative); borderline personality disorder (impulsive, self-destructive; unstable), dependent personality disorder (dependent, submissive, clinging); Histrionic personality disorder (emotional, dramatic, theatrical); narcissistic personality disorder (boastful, egotistical, "superiority complex"); obsessive-compulsive personality disorder (perfectionist, rigid, controlling); paranoid personality disorder (suspicious, distrustful); and, schizoid personality disorder (socially distant, detached), etc.

While personality traits are unique and may enable a person to excel in a particular field, individuals with identifiable personality disorders are likely to have attitudes or perform acts that may be prejudicial to flight safety. Such individuals fail to meet CASA's psychiatric medical standards and will usually be disqualified from aeromedical certification. Certification may be considered if specialist psychiatric opinion confirms that a pilot or ATC with a personality disorder represents a low risk to aviation safety.

#### 2.6.20 Other Psychiatric Conditions which may be the Focus of Clinical Attention

##### *Suicidal Ideation or Gesture*

Suicide and attempted suicide are not psychiatric diagnoses per se, but rather symptoms of underlying psychiatric disease. Furthermore, it is uncommon for an individual to use an aircraft as a means of committing suicide.

Those who commit suicide are more often male. The act is carefully planned, precautions taken against discovery, and the method is often violent. The majority of those who suicides are suffering from a depressive disorder, many having significant social problems, and alcohol misuse is a feature in about 15% of cases. In the younger age groups personality disorders are frequently diagnosed, because they are often associated with alcohol or drug misuse, and adverse social factors. Deliberate self-harm is usually an impulsive act, committed in such a way as to invite discovery. Over dosage with minor tranquillisers, antidepressants and non-opiate analgesics is common. Frank major psychiatric illness is uncommon.

In assessing potential risk the following factors should be considered:

- A history of direct statement of intent
- A history of previous self harm
- A previous or current depressive disorder, particularly in the early phase of recovery
- Alcohol dependence, particularly with severe physical or social complications
- Drug dependence
- Social deprivation or loneliness.

Certification may be considered if specialist psychiatric opinion confirms that a pilot or ATC who has attempted or considered suicide represents a low risk to aviation safety. Applicants who have a history of multiple suicide attempts will not usually be granted a medical certificate.



#### *Fear of Flying*

DSM IV identifies as a true simple phobia the overt, unabashed, and long-standing fear of flying which usually occurs in people who are not aviators. When an experienced aviator who previously enjoyed flying presents with "fear of flying" it may represent a complex mix of more acute causes and symptoms' presentations. In such fearful fliers, anxiety about symbolic threats may overlay a rational fear of actual risks; this may represent a reaction to a near or actual accident, or displaced anxiety from a personal crisis. If the flier is not consciously aware of the fear, the focus may be on vague or trivial somatic symptoms, presented in a setting of "I'd like to fly, but—." This attitude presents a striking clinical contrast to the more usual tendency of fliers to understate, if not actually deny, signs and symptoms that they believe may disqualify them from medical certification.

An episode of spatial disorientation or of hyperventilation in flight may trigger intense symptoms of anxiety. Loss of motivation to fly may undermine previously adequate means of coping with the true dangers of flight, particularly in professional aviators. An accident involving the flier or a friend may overwhelm mental defences against such a possibility. Interpersonal conflicts with significant individuals in a non-aviation setting (home, office) may precipitate aviation-related anxieties without any obvious connection to flying except the time of onset.

Whatever its genesis, CASA will not medically certificate a pilot who suffers symptomatic fear of flying until its causes are delineated and the fear has been successfully treated.

# Designated Aviation Medical Examiner's Handbook

## 2. Medical Aspects

### 2.6 Psychiatry

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