

**The Hashemite Kingdom of Jordan
Civil Aviation Regulatory Commission**



Drugs & Alcohol Program

Prevention of Problematic use of Substance in Aviation workplace

Aviation Medicine Unit

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Abbreviations:

AMC :- Aviation Medical Center.

AME :- Authorized Medical Examiner.

AMSC :- Aviation Medicine Supreme Committee.

AMU :- Aviation Medicine Unit.

CARC:-Civil Aviation Regulatory Commission.

EBT :- Evidential Breath Test.

FCL3 :- Flight Crew Licensing 3 (Medical).

HKJ :- Hashemite Kingdom of Jordan.

ICAO :- International Civil Aviation Organization.

JCAR :- Jordan Civil Aviation Regulation.

MoH :- Ministry of Health.

OFP :- Operation Officer Focal Point.

P. MED :- Part Medical of Class Three Medical Requirements.

Definitions

- **Alcohol** . is the intoxicating agent in beverage alcohol, ethyl alcohol or other low molecular weight alcohols, including methyl or isopropyl alcohol.
- **Alcohol concentration** . is alcohol in a volume of breath expressed in terms of grams of alcohol per 210 liters of breath as indicated by a breath test, or as a concentration of Nano grams per milliliter for saliva or blood alcohol tests.
- **Alcohol confirmation test** . is a subsequent test using an EBT, following a screening test with a result of a specified concentration (0.02, .04, etc.) or greater, that provides quantitative data about the alcohol concentration.
- **Alcohol use** . is the drinking or swallowing of any beverage, liquid mixture or preparation (including any medication), containing alcohol.
- **AMSC** . Aviation Medicine Supreme committee appointed by CARC to act as Medical Assessor.
- **Breath analyser** . is a device for estimating Blood Alcohol Content (BAC) from a breath sample.
- **Employee** . is person who is hired , either directly or by contract or transfer into a position to perform a safety – sensitive function for an employer.
- **Employer** . an operator as defined in JCAR OPS I.
- **Operator Officer Focal Point** :- is an officer designated by the operator approved by CARC / AMU. responsible for Drug & Alcohol Testing program.
- **Problematic Use of Substance or Problematic Substance Use is :-**

The use of one or more psychoactive substances by Aviation Personnel in way that :

- a) Constitutes a direct hazard to the user or endangers the lives, health, or welfare of others; and/or.
- b) causes or worsens an occupational. social, mental, or physical problem or disorder.

Problematic substance use intervention consists of actions aimed at nullifying or minimizing the psycho- logical, physiological, medical. occupational, operational, and/or social consequences of problematic substance use, especially those adversely affecting safety in the aviation workplace.

Problematic substance use prevention consists of the actions necessary to preclude problematic substance users from being employed within the safety-sensitive areas of aviation and the actions aimed at deterring safety-sensitive aviation personnel from engaging in problematic substance use.

Psychoactive substances considered in this document are: alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other stimulants, hallucinogens, and volatile solvents. The document does not consider tobacco or caffeine.'

Safety-sensitive employees are persons who might endanger aviation safety if they perform their duties and functions improperly. This definition includes, but is not limited (technical air crew, cabin crew, aircraft maintenance personnel, air traffic controllers, dispatchers and security screeners).

Chapter 1 General Information: -

1.1 Aviation workers have a special obligation to ensure that they are capable of performing their duties to the best of their abilities. Similarly, aviation regulatory authorities and industry employers have a special obligation to ensure that aviation safety is maintained at a high level and meet precautions necessary to achieve the regulations implemented.

1.2 In addressing the issue of problematic use of substances by aviation workers CARC focused on the following: -

- a) The nature of aviation places a special responsibility on aviation workers, employers, regulators and governments to protect public safety and prevent harm.
- b) Any psychoactive substance has the potential for creating mental and physical problems in the user.
- c) Any use of psychoactive substances which may negatively affect the performance of safety- related aviation duties has the potential for doing harm.
- d) Preventing the problematic use of substances by aviation workers; and.
- e) Preventing the adverse effects of problematic substance use from threatening the aviation workplace.

1.3 Next to the effect on safety, the most significant threat that problematic substance use poses to civil aviation is the loss of public trust. The aviation industry cannot operate without the fundamental belief on the part of consumers that the aircraft on which they, their families. or their property will travel is maintained and operated safely. It would indeed be unwise to disregard any precaution necessary to maintain that trust.

1.4 Problematic substance use has been an issue of importance to ICAO for many years. although most of the attention has focused flight crew members and air traffic controllers, the occupational categories most immediately critical to the safe operation of aircraft. ICAO Standards and Recommended Practices (SARPs) contain the following relevant and longstanding provisions. With respect to medical fitness, Annex I contains, in 1.2.6.1, a Standard according to which "license holders shall not exercise the privileges of their licenses and related ratings at any time when they are aware of any decrease in their medical fitness which might render them unable to safely exercise these privileges.

In 1.2.6.1.1, a Recommendation is addressed to all Contracting States which "should, as far as practicable, ensure that license holders do not exercise the privileges of their licenses and related ratings during any period in which their medical fitness has, from any cause, decreased to an extent that would have prevented the issue or renewal of their Medical Assessment , Paragraph 6.2.2 provides the Standard on the physical and mental requirement for any class of Medical Assessment and makes it mandatory for an

applicant for a license or its renewal to be free of, *inter alia*, "any active, latent, acute or chronic disability ... such as would entail a degree of functional incapacity which is likely to interfere with the safe operation of an aircraft or with the safe performance of duties." In accordance with 6.3.2.2 (Class I Medical Assessment for applicants for or holders of commercial pilot licenses, airline transport pilot licenses, flight navigator and flight engineer licenses), 6.4.2.2 (Class 2 Medical Assessment for private pilot licenses and glider and free balloon pilot licenses) and 6.5.2.2 (Class 3 Medical Assessment for air traffic controller licenses), the applicant shall not have an "established medical history or clinical diagnosis of ... alcoholism, drug dependence ... such as might render the applicant unable to safely exercise the privileges of the license applied for or held , Annex 6, Pan II, 4.12 deals with the fitness of flight crew members and states that "the pilot-in- command shall be responsible for ensuring that a flight: a) will not be commenced if any flight crew member is incapacitated from performing his duties by any cause such as injury, sickness, fatigue, the effects of alcohol or drugs; b) will not be continued beyond the nearest suit- able aerodrome when flight crew members' capacity to perform functions is Significantly reduced by impairment of faculties from causes such as fatigue, sickness. lack of oxygen."

1.5 According to previous item (1.4) CARC established in it is regulation JCAR , the following item :

1.5.1 JCAR FCL3. (Medical) item 3.040 which state:-

(a) Holders of medical certificates shall not exercise the privileges of their licenses, related ratings or authorizations at any time when they are aware of any decrease in their medical fitness which might render them unable to safely exercise those privileges.

(b) Holders of medical certificates shall not take any prescription or non-prescription medication or drug, or undergo any other treatment, unless they are completely sure that the medication or treatment will not have any adverse effect on their ability to perform safely their duties. If there is any doubt, advice shall be sought from the CARC, or an AME.

(c) Holders of medical certificates shall, without undue delay, seek the advice of the CARC, or an AME when becoming aware of:

- (1) Hospital or clinic admission for more than 12 hours; or
- (2) Surgical operation or invasive procedure; or
- (3) The regular use of medication; or
- (4) The need for regular use of correcting lenses

(d) (1) Holders of medical certificates who are aware of:

(i) Any significant personal injury involving incapacity to function as a member of a flight crew; or

(ii) Any illness involving incapacity to function as a member of a flight crew throughout a period of 21 days or more; or

(iii) Being pregnant, shall inform CARC or the AME, who shall subsequently inform CARC in writing of such pregnancy, and as soon as the period of 21 days has elapsed in the case of pregnancy. The medical certificate shall be deemed to be suspended upon the occurrence of confirmation of the pregnancy.

(2) In the case of injury or illness the suspension shall be lifted upon the holder by CARC or under arrangements made by CARC and being pronounced fit to function as a member of the flight crew, or upon CARC exempting, subject to such conditions as it thinks appropriate, the holder from the requirement of a medical examination.

(3) In the case of pregnancy, the suspension may be lifted by the AME in consultation with CARC for such period and subject to such conditions

as it thinks appropriate. If an AME assesses a pregnant Class 1 pilot as fit Class 1, a multi-pilot (Class 1 “ OML”) limitation shall be entered. The suspension shall cease upon the holder being medically assessed by the AME – after the pregnancy has ended – and being pronounced fit. Following fit assessment by an AME at the end of pregnancy, the relevant multi-pilot (Class 1 “ OML”) limitation may be removed by the AME, informing CARC.

1.5.2 JACR FCL3. (Medical) item 3.205 & 3.240 which state:-

- (a) An applicant for or holder of a Class 1 medical certificate shall have no established medical history or clinical diagnosis of any psychiatric disease or disability, condition or disorder, acute or chronic, congenital or acquired, which is likely to interfere with the safe exercise of the privileges of the applicable license(s),
- (b) Particular attention shall be paid to the following see Appendix 10 to Subpart B:
- (1) Schizophrenia, schizotypal and delusional disorders;
 - (2) Mood disorders;
 - (3) Neurotic, stress-related and somatoform disorders;
 - (4) Personality disorders;
 - (5) Organic mental disorders;
 - (6) Mental and behavioural disorders due to alcohol;
 - (7) Use or abuse of psychotropic substances.
 - (8) Mental retardation;
 - (9).A behavioural or emotional disorder, with onset in childhood or adolescence ; or mental disorder not otherwise specified.
- (c) An applicant with depression, being treated with antidepressant medication, should be assessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant’s condition as unlikely to interfere with the safe exercise of the applicant’s licence and rating privileges.

Note — Mental and behavioral disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organization as given in the International Statistical Classification of Diseases and Related Health Problems, 10th Edition — Classification of Mental and Behavioral Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements which may be useful for their application to medical assessment.

- (a) An applicant for or holder of a Class 1 medical certificate shall have no established psychological deficiencies (see paragraph 1 Appendix 17 to Subpart B), which are likely to interfere with the safe exercise of the privileges of the applicable licence(s). A psychological evaluation may be required by CARC where it is indicated as part of, or complementary to, a specialist psychiatric or neurological examination (see paragraph 2 Appendix 17 to Subpart B).
- (b) When a psychological evaluation is indicated a psychologist acceptable to CARC shall be utilized.
- (c) The psychologist shall submit to CARC a written report detailing his opinion and recommendation.

1.5.3 JCAR Part MED item MED 0.30 which state :-

- (a) Holders of medical certificates shall not exercise the privileges of their licenses, related ratings or authorizations at any time when they are aware of any decrease in their medical fitness which might render them unable to safely exercise those privileges.
- (b) Holders of medical certificates shall not take any prescription or non-prescription medication or drug, or undergo any other treatment, unless they are completely sure that the medication or treatment will not have any adverse effect on their ability to perform safely their duties. If there is any doubt, advice shall be sought from the CARC, or an AME.
- (c) Holders of medical certificates shall, without undue delay, seek the advice of the CARC, or an AME when becoming aware of:
 - (1) Hospital or clinic admission for more than 12 hours; or
 - (2) Surgical operation or invasive procedure; or
 - (3) The regular use of medication; or
 - (4) The need for regular use of correcting lenses.
- (d) (1) Holders of medical certificates who are aware of:
 - (i) Any significant personal injury involving incapacity to the privileges of their licenses or
 - (ii) Any illness involving incapacity to the privileges of their licenses throughout a period of 21 days or more; or

(iii) Being pregnant, shall inform CARC or the AME, who shall subsequently inform the CARC in writing of such pregnancy, and as soon as the period of 21 days has elapsed in the case of pregnancy. The medical certificate shall be deemed to be suspended upon the occurrence of such confirmation of the pregnancy.

(2) In the case of pregnancy, the suspension may be lifted by the AME in consultation with the CARC for such period and subject to such conditions as it thinks appropriate. The suspension shall cease upon the holder being medically assessed by the AME – after the pregnancy has ended – and being pronounced fit. Following fit assessment by an AME at the end of pregnancy, the relevant medical certificate may be issued, informing the CARC.

(3) In the case of injury or illness the suspension shall be lifted upon the holder by CARC or under arrangements made by CARC and being pronounced fit, or upon CARC exempting, subject to such conditions as it thinks appropriate, the holder from the requirement of a medical examination.

1.5.4 JCAR Part MED item MED 0.175 & 0.210 which state :-

- (a) An applicant for or holder of a Class 3 medical certificate shall have no established medical history or clinical diagnosis of any psychiatric disease or disability, condition or disorder, acute or chronic, congenital or acquired, which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).
- (b) Particular attention shall be paid to the following (see Appendix 10 to Subpart B):
- (1) Schizophrenia, schizotypal and delusional disorders;
 - (2) Mood disorders;
 - (3) Neurotic, stress-related and somatoform disorders;
 - (4) Personality disorders;
 - (5) Organic mental disorders;
 - (6) Mental and behavioral disorders due to alcohol;
 - (7) Use or abuse of psychotropic substances.
 - (8) Mental retardation;
 - (9) A behavioral or emotional disorder, with onset in childhood or adolescence ; or mental disorder not otherwise specified.
- (c) An applicant with depression, being treated with antidepressant medication, should be assessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's license and rating privileges.

Note — Mental and behavioral disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organization as given in the International Statistical Classification of Diseases and Related Health Problems, 10th Edition — Classification of Mental and Behavioral Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements which may be useful for their application to medical assessment.

- (a) An applicant for or holder of a Class 3 medical certificate shall have no established psychological deficiencies, particularly in operational aptitudes or any relevant personality factor, which are likely to interfere with the safe exercise of the privileges of the applicable licence(s). A psychological evaluation (see paragraph 1 Appendix 17 to Subpart B) may be required by CARC where it is indicated as part of, or complementary to, a specialist psychiatric or neurological examination (see paragraph 2 Appendix 17 to Subpart B).
- (b) When a psychological evaluation is indicated a psychologist acceptable to CARC shall be utilized.
- (c) The psychologist shall submit to CARC a written report detailing his opinion and recommendation.

1.6 Although prevention and occupational health form integral parts of aviation medicine and the concept of preventive measures has been supported by CARC for many years, it may still be novel to apply substance use prevention efforts to the aviation work- place. It is therefore important to set forth some of the guiding principles of ICAO's & CARC actions.

1.7 In addition to guidance on prevention programming, samples of practical assessment and implementation tools are attached to this document. All of this material is designed to be used and adapted in any environment that requires the implementation of a health and safety promotion programmer related to the problematic use of substances in the aviation industry by any safety-sensitive employees.

1.8 Finally the critical importance in establishing any programmer is the need to ensure that adequate advance strategic planning occurs prior to any attempt to utilize the guidance contained in this document. Therefore, a strategic planning outline is included in the attachments. This outline should be used in conjunction with the substantive information provided throughout this document.

Chapter 2 Education of the Aviation workforce: -

- 2.1 While any person might be able to deduce that it is inappropriate to work while intoxicated, the more subtle aspects of problematic substance use are not so apparent. No person, therefore, can make appropriate lifestyle and behavior choices unless adequately educated. Information about signs of possible problems, degrees of impairment short of overt intoxication, and hazards posed by problematic use of substances must be conveyed to the workforce - including managers and supervisors.
- 2.2 **Employees** and aviation employers should be cognizant of the possible effects of medications and take action to ensure that aviation safety is not jeopardized. Unlike other forms of substance use, however, the therapeutic use of a medication will often include the intervention of a healthcare professional who will usually, especially if aware of the patient's occupation, advise of any adverse effects of the drug including interactions with alcohol or other chemicals.
- 2.3 Successful educational programmes that seek to limit substance use acknowledge the environmental and personal influences that encourage use. Clearly the attitudes and behavior of key people in the employees' lives must be recognized, as well as the role of the media and the pressures of the work situation.
- 2.4 Workforce education can occur in formal settings like classrooms or workshops, using methods such as lectures, laboratory experiments, discussions, recitations and testing. Generally these methods involve an expert who provides information to a passive audience of students.
- 2.5 **The** limitation of substance use in the aviation workplace depends on social and psychological skills reflecting certain attitudes, beliefs and behaviors. It is essential that resources which assist in the development of these are made readily available, as access to health, welfare, educational and vocational services can help the individual cope with life stresses and deal with difficult situations without resorting to substance use. The content and format of any education programme must be carefully evaluated to determine its validity, utility, appropriateness, cultural sensitivity and impact within the community.
- 2.6 With respect to aviation employees, then, it is essential that educational programmes relating to the problematic use of substances not only provide information on alcohol or other drugs that might affect these employees, but also make the information relevant. This goal is more easily accomplished in aviation than in many other social or occupational settings because the aviation industry already has a culture of safety into which education about substance use neatly fits. The highly regulated nature of virtually every activity in aviation sends constant messages to aviation employees that lives and property rely on employees' performance of duties. Despite the

emotional responses that the issue of problematic substance use sometimes raises, it is really just another aspect of the obligation shared by the entire industry to ensure safety. Just as skills must be maintained, necessary tools kept available and appropriate materials used, physical and mental faculties must be kept unimpaired. That is the context in which education of the workforce needs to be set, and the preventive message must be repeatedly conveyed to ensure its integration into the general framework of the aviation work-place.

- 2.7** The medium used to provide the education and the content will vary, depending on the resources available and the context in which the education will be provided. Regardless of the methodology chosen, educational efforts will work best when they are integrated into the workplace. Messages about the prevention of problematic use of substances should be added to routine safety-related training or information dissemination; this will emphasize that prevention is just another aspect of the need to ensure that public and workplace safety are maintained.
- 2.8** As with any safety issue, the education should also include information regarding the consequences of engaging in problematic substance use. This information should address employment and health consequences, as well as the potential consequences to the industry or company. If any data are available regarding the costs to the relevant society, national aviation industry, or company, these data should be conveyed to employees. Employees should be advised about actual or potential increases in customer complaints caused by employees impaired by substance use or hangovers, about expenditures of management time to deal with affected employees, and about possible losses of competitiveness and profits.
- 2.9** It is also important to ensure that all employees, regardless of their organizational positions, are adequately trained to recognize potential problems and know the established procedures for addressing them. Co-workers, including supervisors, will often be the first to recognize decrements in an employee's performance. Although they need not be diagnosticians, co-workers and supervisors, if properly trained, may be able to ascertain if substance use could be a factor in declining performance.
- 2.10** There can be as many different educational programmers as there are settings in which to present them; however, this document provides examples of training materials that can be adapted for use in many situations. These materials include sample training curricula, employer policy statements, information on alcohol and other drugs, and guidelines on identifying problematic substance use. Programmer developers may also be able to obtain useful information from CARC medical advisers, national or local law enforcement and health authorities, substance use prevention and treatment specialists, or other experts.



Chapter 3 Responsibilities & duties: -

3.1 CARC / AMU Responsibilities: -

- a) distribution of this instruction to all operators licensed by CARC, for examples but not limited : Aircraft operators , Airport operators , security screeners operators and Air traffic operator.
- b) Ensure the distribution of this instruction to all Aviation Safety – sensitive employers, for example but not limited flight crew employers, Cabin Crew , flight instructors student pilots , flight engineers , flight navigators, flight mechanic & Repairman and Air traffic Controllers.
- c) Ensure the complying of all operators to this instruction.
- d) Approved the operator designated OFP
- e) Perform random Drug & Alcohol test at any time for any employee licensed by CARC who perform safety – sensitive function without prior notification .
- f) Remove any employee with refusal to perform the required test or with confirmed positive drug testing result & alcohol misuse from Safety –sensitive function and appropriate action shall be taken by CARC according to this instruction document.
- g) Inspection on records at the operators with access to copy any records when it is needed.
- h) Monitor the designated laboratories chosen to perform the drug screening tests are duly certified by MOH of HKJ.
- i) Keeping all records & documents of the Test results in safe secure and confidential format .

3.2 Responsibility of operators :

Each operator shall develop standard operation procedures to adopt this instructions and appoint officer approved by CARC/AMU to act as focal point at CARC for drug & alcohol testing program known as operator focal point (OFP), he shall possess the following duties:-

- a. Shall be responsible for , directing , administering and managing the drug program ,with in the operator.
- b. Shall serve as the principle contact with the laboratory and for collection activities in assuring the effective operation of the testing portion of the program.
- c. Arrange all testing required by CARC.
- d. Ensure that all employees who engaged in safety-sensitive function like but not limited flight crew, maintenance personnel liscend by CARC and any other airmen who hold CARC medical certificate subject to drugs & alcohol programm testing every two years .
- e. Keep all records in safe, secure & confidential format.
- f. Immediate inform CARC/AMU of refusal take the required test or any positive result or misuse of Alcohol & Drugs.
- g. Shall send all positive results to CARC / AMU using the Drug & Alcohol Testing program form (Appendix 2 of this document with original copy of the lab result, signed & selead by the lab officer.
- h. Shall use the employee interview checklist before performing the test .(Appendix 1 of this document).

- i. Remove immediately any employee with positive drug result or alcohol test result of 0.02% or higher from safety –sensitive function.

3.3 Responsibility of Employee:-

- a. No employee shall act as safety- sensitive function under the influence of alcohol or any other psychoactive substance.
- b. No employee shall drink alcohol during duty time on a company property or in a company vehicle within 12 hours form duty time.
- c. No employee shall use any medication that could affect the safe performance of duties unless the AME/CARC has been informed and approved in Witten format for such use.
- d. The employee cannot refuse to take the required test under any circumstance or other condition.
- e. Failure to appear for testing without a deferral will be considered refusal to participate in testing and will subject an employee to the range of disciplinary actions including dismissal.



Chapter 4 Biochemical Testing programmers: -

4.1 Biochemical testing is a process whereby a sample of breath, blood, urine or other body fluid or tissue is procured from an individual and submitted for biochemical or biophysical laboratory examination and analysis, and where the result of this testing is cited as proof of a particular conduct.

4.2 Whom to Test the aviation environment is one that mandates safety at all times, it is possible that not all aviation employees can or should be subjected to biochemical testing. As with anything else, of course, the decision on the appropriate scope of the programme will depend on the situation for which the decision is being made. An employer that has a "one population, one policy" rule would apply a testing programme either to none of its employees or to all of them. Alternatively, some employers may choose to adopt a programme that applies only to those employees performing functions deemed to be sufficiently safety- sensitive to warrant the intrusion on privacy that testing unavoidably brings. The categories selected should include: flight crew members (pilots, flight engineers and flight navigators); flight attendants; maintenance personnel (including repair and inspection personnel); flight instructors; dispatchers; passenger & baggage screeners; ground security coordinators; and air traffic controllers. Other categories of personnel. among them airport security and firefighters, could also be considered for inclusion.

4.3 Types of Tests

4.3.1 Pre-employment/pre-transfer testing: This type of testing is designed to identify applicants for employment or for transfer to a safety- sensitive position who engage in use of psychoactive substances The consequences of a test indicating the presence of such a substance at or above the designated cut-off levels could include refusal of employment or transfer or an offer of employment or transfer conditioned on an agreement to submit to monitoring (follow-up) testing.

4.3.2 Periodic testing: This type of testing is conducted on a regular, announced basis (for example. during an annual physical examination). It is designed to deterrence individuals from using alcohol or other drugs. but has the primary effect of identifying those individuals too dependent to abstain from use proximate to the time of the test.

4.3.3 Random Testing: The theory of random testing is one of deterrence individuals who are subject to random, unannounced searches for evidence of prohibited conduct will choose not to engage in such conduct if they perceive a likelihood of the use being detected and that adverse consequences will apply if detection occurs. It is a fairly simple theory and the same theory as the one underlying unannounced audits in banks and roadside sobriety checkpoints.



was instituted as an almost purely preventive measure to keep the rising tide of illegal drug use in that State from overflowing into an historically safe industry. to keep the rising tide of illegal drug use in that State from overflowing into an historically safe industry.

it does not presume that any particular individual has engaged in or will engage in problematic substance use, but it does presume that the threat of such use exists in the relevant environment.

a variant on strict random testing combines random testing with reasonable suspicion. In this type of testing. employees are randomly selected and interviewed by a supervisor.

4.3.4 Reasonable suspicion or “ reasonable cause or for cause testing “: This testing is based on indicators that an employee is currently impaired by alcohol or other drugs. Many labor groups do not object to reasonable suspicion testing provided that there is a proper basis for the suspicion. In practice, however, many supervisors hesitate to identify an individual for suspicion-based testing for fear that the employee would claim to have been defamed by the suspicion. The key to effective inclusion of reasonable suspicion testing in any programme rests in ensuring that the bases for testing are fully defined and that responsible supervisors are adequately trained.

4.3.5 Return to duty / follow –up Testing These tests are necessary when an individual returns (0 work following an instance of problematic substance use. Such an individual should be required to demonstrate being abstinent in order to return to work. and should demonstrate continued abstinence through frequent or unannounced follow-up testing.

4.3.6 Post – accident Testing . Tests of this type should generally be performed on employees whose conduct could have contributed to the accident. The definition of the triggering event may vary - some employers or regulators may limit this testing only to serious occurrences involving the operation of an aircraft, while others may include situations resulting in serious workplace injuries or Significant damage to property.

4.4. Implementation of a testing programmer.

4.4.1. Alcohol testing methodology .

Breath testing indirectly measures blood alcohol content by measuring the alcohol removed from the blood in the lungs and released in expired air. The devices essentially use a correlation between alveolar air alcohol and blood alcohol. The major concerns about breath testing are the lack of specificity in some devices (i.e. they are not necessarily specific for ethanol), the variation in devices, and the accuracy of the devices at low alcohol concentrations, in high-volume use, in weather extremes, and upon frequent transportation.



4.4.1.1. Alcohol testing methodologies are classed by forensic acceptability (i.e. evidential or nonevidential) and by the biological matrix used (blood, breath, urine).

4.4.1.2. Nonevidential devices The most common nonevidential devices are breath testing devices, which vary from so-called "blow tubes" that contain crystals that change color in the presence of a certain amount of alcohol in the expired air, to small portable electronic devices that provide a quantified result .

N.B :- All positive alcohol breath test must be confirmed by blood alcohol testing.

4.4.1.3. Evidential testing methodology Blood testing. is a well-established and very accurate method of confirmatory alcohol testing and shall permit motor vehicle drivers who are charged with driving under the influence/while intoxicated to have blood testing conducted. Although alcohol can vaporize out of blood, blood is collected in a vacuum tube, a preservative is added, and the tube is tightly capped. The most accurate methods of testing blood are by gas chromatography and enzymatic oxidation. These methodologies are specific for ethanol.

4.4.2. Psychoactive substance testing (other than alcohol).

4.4.2.1. Drugs to tested are Cannabis (Marijuana & it is metabolites) , Cocaine and it is metabolites, opiates with morphine and metabolites, Amphetamines barbiturates, Benzodiazepines , Methadone , phencyclidine (PCP), K2 , Tramal , in addition to any drug testing deemed necessary by CARC /AMU

4.4.2.2. Testing can be performed using hair or any biological fluid. urine testing are by far the most established and accepted forms of testing. The former is of most use in obtaining evidence of recent use and, in fact, may be the only way of verifying use if an employee is discovered actually using a substance. Because it takes time for the body to metabolize the substances after consumption, a urine sample collected immediately after use of a substance will not contain evidence of that use. (The urine could contain evidence of past use, if any, and testing for such *use* would be warranted.) The most common test for psychoactive substance testing is urine screening test.

4.4.2.3. A screening test determines the **presumptive** presence or absence of substances in a person's body. Because they lack specificity or sensitivity, or only provide a qualitative (not quantitative) measure.

4.4.3. Confirmation testing :- Any test result indicating that an individual may have used a psychoactive substance should be confirmed by a second analysis. Although any of the methodologies used for screening can also be used for confirmation, it is best to use a second analytical procedures.



4.4.4. Detection period of Drug & its metabolites The length of time a drug or metabolite can be found in body fluids is known as the detection period. Detection periods vary widely according to the inherent physical and chemical properties of the drug itself, the person's history of use, and characteristics such as age, sex, body weight, and health. For example, the cocaine detection period is very short (12 to 48 hours) whereas marijuana has a longer detection period, depending on drug-use history. Casual marijuana use can be detected from 2 to 7 days later. With chronic use detection may be possible up to two months after the last use. However, a single puff of low potency marijuana may be undetectable after 12 hours. Detection time is of intense concern to employers because it indicates how long after illicit drug use that use can be detected and therefore how confident the employer can be that employees tested negative are actually drug free at the time of testing. For employees who have used illicit drugs, knowledge of detection times can mean the difference between being detected and slipping by. Drug using employees usually consult detection time tables to determine how long they shall abstain from use when facing a drug test with the hopes of testing negatives.



Chapter 5 Testing Procedures: -

5.1 Substance (other than alcohol) testing procedure:

The organization drug testing component shall have professionally trained collection personnel, quality assurance requirements for urinalysis procedures, and strict confidentiality requirements.

5.1.1 The collection site must fulfill the following :-

- a) shall have all necessary personnel, materials, equipment, facilities and supervision to provide for the collection, temporary storage, and shipping of urine specimens to a laboratory, and a suitable clean surface for writing.
- b) shall include a facility for urination which may include a single- toilet room, having a full-length privacy door, within which urination can occur or the second type where facility for urination may include is a multiscale restroom.
- c) may be in a medical facility, a dedicated collection facility, or any other location meeting the requirements.
- d) should be secure from any water sources, there should be no soap, disinfectants, cleaning agents, or other possible adulterants are present.
- e) The company shall implement a policy and procedures to prevent unauthorized personnel from entering any part of the site in which urine specimens are collected or stored. Only employees being tested, collectors and other collection site workers and employer representatives/or Supervisors and CARC representatives are authorized persons for purposes of this paragraph.
- f) CARC Drugs & Alcohol Testing program form shall be used to document every urine collection required by the CARC drug testing program.

5.1.2 The specimen Collector Personnel may observe the individual provide the urine specimen if it necessary .

5.1.3 The employee shall provide positive identification such as a photo ID issued by the employer, or local government (e.g., a driver's license).

5.1.4 Prior to conducting any test, the employee should sign a form in which the employee shall specify any medication they may be taking which could affect the result of the test.

5.1.5 The employee shall to go into the room used for urination, and provide a specimen of at least 45 ml, and return to the collector with the specimen as soon as he has completed the void.

5.1.6 Every urine specimen collected shall be assigned a unique number, only that number and not the employee's name, will be provided to the testing laboratory. The urine specimen should be split into two clean containers and each sealed.

- 5.1.7 Once the collection is complete, the chain of custody form shall be completed before transferring the specimen to the laboratory,
- 5.1.8 Refusal by an employee to undergo a test is considered a breach of the CARC policy and will be treated as a positive result.
- 5.1.9 cases where the candidate admits the use of medicine which is incompatible with flying duties before submitting the urine test for random checks, shall be considered violation for Civil Aviation Regulations, and the CARC / AMU should be informed.
- 5.1.10 The temperature of the specimen should be checked no later than four minutes after the employee has given you the specimen. The acceptable temperature range is 32–38 °C/90–100 °F.
- 5.1.11 The specimen then underwent a validity testing, where it is tested for any adulterants or substances added to obscure possibly positive results.
- 5.1.12 If the specimen temperature is outside the acceptable range and /or the specimen did not pass the validity testing a new collection using direct observation procedures is mandatory. In this case, both the original specimen and the specimen collected shall be processed using direct observation and send the two sets of specimens to the laboratory. And the supervisor/or operator representative should be informed. If the employee refuses to provide a specimen under direct observation any specimen the employee provided previously during the collection procedure shall be discarded.
- 5.1.13 The result for each primary specimen tested shall be reported as one or more of the following:
- (a) Negative;
 - (b) Negative- dilute, with numerical values for creatinine and specific gravity;
 - (c) Rejected for testing, with remark(s);
 - (d) Positive, with drug(s)/metabolite(s) noted;
 - (e) Positive, with drug(s)/metabolite(s) noted—dilute;

Note: Laboratory results shall be reported directly to CARC/AMU, and only, to the Supervisor/safety representative.

5.2 Alcohol testing procedures.

5.2.1 Testing Sites, Forms, Equipment Used in Alcohol Testing:-

- (a) An alcohol testing site, shall provide visual and aural privacy to the employee being tested, sufficient to prevent unauthorized persons from seeing or hearing test results And it shall have all needed personnel, materials, equipment, and facilities to provide for the collection and



analysis of breath, and a suitable clean surface for writing.

- (b) An alcohol testing site can be in a medical facility, a dedicated collection facility, or any other location meeting the requirements of this section.
- (c) Only employees being tested, trained tester, and other alcohol testing site workers, company representative/supervisor, and CARC representative are authorized to enter to testing site.
- (d) When an Evidential Breath Test screening test on an employee indicates an alcohol concentration of 0.02% or higher, this is considered a positive alcohol testing.
- (e) Only the CARC alcohol testing form is allowed to be used for this purpose without modifications.
- (f) The inspection, maintenance, and calibration of the EBT are performed by its manufacturer or a maintenance representative certified either by the manufacturer or other appropriate agency should be maintained.

5.2.2 On arrival at the testing area both the tester or the technician and the individual to be tested are required to show their identification.

5.2.3 The tester should explain the testing procedure before commencing the test, and then signing the form. The tester instruct the employee to blow steadily and forcefully into the mouthpiece for at least six seconds or until the device indicates that an adequate amount of breath has been obtained.

5.2.4 Show the employee the displayed test result.

5.2.5 If the screening test is 0.02% or greater a confirmation test will be performed. The confirmation test may be performed on the same machine, as long as, the machine has the capability of printing each test result and air blank, and to consecutively number each test. Another evidential test may be done by using blood.

5.2.6 A waiting period of at least 10 minutes, starting with the completion of the screening test should be elapsed before conducting confirmation test.

5.2.7 the tester should instruct the employee not to eat, drink, put anything (e.g., cigarette, chewing gum) into his or her mouth, or belch;

5.2.8 In the presence of the employee, the tester shall conduct an air blank on the EBT which they are using before beginning the confirmation test and show the reading of 00.0 to the employee.

5.2.9 The employee should see the result displayed on the EBT in confirmation test.

5.2.10 If the alcohol confirmations test results is 0.02 % or higher, direct the employee to sign and date the alcohol testing form.

5.2.11 Immediately transmit the result directly to CARC/AMU & the operator representative in

a confidential manner

5.2.12 Printout of the results, both the screening and confirmatory, shall be forwarded to CARC/AMU along with the alcohol testing Form immediately.

5.3 Refusal to take the test

CARC will consider all of the following conditions as a refusal to take the test:

- (a) Fail to appear for any test within a reasonable time, as determined by the employer, after being directed to do so by the employer.
- (b) Fail to remain at the testing site until the testing process is complete.
- (c) Fail to provide an adequate amount of breath for alcohol test or urine sample required by this document.
- (d) Fail to sign the certification at the alcohol testing form or drug screening form.
- (e) Fail to cooperate with any part of the testing procedure.



Chapter 6. Consequences: -

- 6.1** An important issue to be addressed in the establishment of any programme to prevent problematic use of substances is the sociomedical disposition of individuals who engage in such use.
- 6.2** An employee may be found to use illegal drugs on the basis of any appropriate evidence including, but not limited to:
- (a) Direct observation;
 - (b) Evidence obtained from an arrest or criminal conviction;
 - (c) A verified positive test result; or
 - (d) An employee's voluntary admission.
- 6.3** disciplinary consequents of problematic misuse of substance :-
- (a) Immediate removal from the safety sensitive function duties by AMSC.
 - (b) Temporary suspend the CARC flight license for specific period recommended by AMSC.
 - (c) Other disciplinary appropriate action according to Jordan Civil Aviation Law No. 41/2007 & its amendment (Item 61 . bis)
 - (d) Conditional or restricted return to duty, after the Airman had successfully completed the rehabilitation course of therapy.
- 6.4** Refusal to take drug or alcohol test when required . An employee who refuses to be tested when so required will be subject to the disciplinary action, Attempts to alter or substitute the specimen provided will be deemed a refusal to take the drug test when required.
- 6.5** CARC Standards provide that an individual with a medical history or clinical diagnosis of alcoholism and/or drug dependence is not medically qualified to hold a flight crew or air traffic control license. However, provision is made for issuance of a license to a person who would otherwise be disqualified upon a finding that safety would not be compromised if the person exercised the privileges of the license. The evaluation of a person requiring a medical assessment and the subsequent determination that the person can safely perform his or her duties will generally be made by or in conjunction with CARC.
- 6.6** The decision to return an employee to the workplace following problematic substance use must include an assessment of the individual concerned and an assessment of the workplace and with recommendation by AMSC.
- 6.7** An employee, while being treated for a substance use problem, must be abstinent. Before being returned to the workplace, the employee must have been in a stable condition for a reasonable period of time and must be considered fit and safe by AMSC. To guard against relapse, it is essential that the employee be subjected to a long-term monitoring programme. This should include out-patient treatment, counselling, and peer or self-help group support,

and may include biochemical testing, especially for substances with a high relapse rate.

- 6.8** The employer should ensure that the workplace is amenable to the returning employee. If problems in the workplace, such as high levels of stress, contributed to the employee's problem, the solution may be to place the employee in another position or to take steps to reduce the stressors. Similarly, the employee should not be returned to a work group where social pressures could undermine the rehabilitation process. Implementing an education programme for all employees and establishing peer groups within the company can help minimize temptations and pressures for the individuals having problems.
- 6.9** The conflict between problematic use of substances and aviation safety demands that no employee should be permitted to return to an aviation workplace without accepting the fact that such substance use is dangerous and unacceptable.



Chapter 7 Identification, Treatment & Rehabilitation: -

7.1 Identification:-

- 7.1.1** One of the most important aspects of problematic substance use prevention is ensuring that those employees who are inappropriately using alcohol or other drugs are identified and limited to positions in which they cannot threaten aviation safety until it is determined that they no longer pose a risk.
- 7.1.2** Individuals who engage in problematic substance use can be identified in a number of ways. First, the individual who recognizes having a problem may voluntarily seek assistance. Workplace employee assistance programmes, especially those that provide confidentiality to the employee, are likely to encourage such self-identification. However, most employees, especially those who have become drug dependent, do not self-identify. Fear of job loss or stigma cause some employee reluctance; denial may also be the cause. An employee who is dependent on alcohol or another drug may deny the fact of the dependence (can quit any time) or may deny that it is adversely affecting the workplace.
- 7.1.3** Co-workers and supervisors may be in the best position to identify employees who may be engaging in problematic substance use. If dependent, the employee may display both signs of immediate impairment from use and long-term behavioral and performance indicators of a problem. Supervisors who are properly trained and aware of their employees' conduct can confront employees with documented observations of these indicators. Similarly, co-workers may be able to identify problematic substance use.
- 7.1.4** Problematic substance use can also be identified through biochemical testing, because of the complexity of the issues involved in testing. This document includes a separate section on such programmes.
- 7.1.5** Law enforcement agencies are another possible source of information regarding problematic substance use, employers or CARC might require reporting of arrests, indictments and convictions for alcohol to other drug-related offenses. Information concerning psychoactive substance use in situations likely to endanger the public (e.g. drunk! drugged driving) can be directly relevant to the performance of duties involving aviation safety. Studies in different parts of the world have shown that persons convicted of driving under the influence of alcohol or while intoxicated very often can be diagnosed as alcoholics. This is especially true if the person concerned is more than 25 to 30 years of age.
- 7.1.6** Once identified as engaging in problematic substance use or as possibly having a difficulty with the use of alcohol or another drug, the employee should be evaluated to determine the nature of the condition.



7.2 Treatment:-

7.2.1 Treatment of psychoactive substance use disorders is the modality used in response to specific symptoms and behavior. It can include pharmacotherapy, psychotherapy, and various social measures, depending on the presenting condition and the clinician's determination of the appropriate course of therapy. Treatment can involve, among other things, the following modalities:

(a) **Detoxification.** This is the management of the patient during the process of eliminating a drug from his system. Medically monitored detoxification, usually on an in-patient basis, is indicated when the patient presents with acute intoxication. The length of the detoxification process will vary, depending on factors such as the types, quantities and combinations of substances taken, the duration and severity of the dependence, age and general physical health, uncomplicated detoxification will generally last from one to seven days, while detoxification from barbiturates can take two weeks or longer, further treatment will always be necessary after detoxification.

(b) **In-patient treatment.** The need for in-patient treatment will depend on the severity of the dependence, the prevalence of relapse for users of the substance involved, the presence of medical complications, the availability of support (family, employer, etc.), and other factors. The degree to which denial is involved in the disease is also important, an individual who denies having a substance use problem, especially after detoxification has been required, is unlikely to continue to obtain assistance once released from care. Similarly, if the patient's family or employer refuse to recognize that a problem exists, the patient will not receive the ongoing support that is necessary to ensure recovery.

(c) **Out-patient treatment.** Once an individual is stabilized and abstinent, treatment must continue on an out-patient basis. Alternatively, out-patient treatment alone may be appropriate for employees who do not meet the diagnostic criteria for dependence but who may need some type of therapeutic intervention because their use of a psychoactive substance is sufficiently recurrent and inappropriate.

7.2.2 Within the previously described modalities, two major types of therapy are usually available for dependents:

(a) **Pharmacotherapy.** Pharmacotherapy is primarily indicated for relief of the more serious symptoms of withdrawal. Benzodiazepines may be helpful in managing alcohol withdrawal, for example. And persons dependent on barbiturates generally need controlled administration of the drug on a strict schedule in order to safely withdraw. The use of drugs in the treatment of dependence must be managed with extreme caution though, especially since many of the most useful drugs have themselves the potential for creating dependence. Although pharmacotherapy for dependence, e.g. methadone maintenance or disulfiram, may be an appropriate type of therapeutic intervention, employees undergoing such treatment should not perform safety-sensitive duties.



Management of dependence on narcotics can also include use of methadone. Methadone can be used to relieve the symptoms of opiate withdrawal and is also used as a long-term substitute for heroin or other opiates, the intent of "methadone maintenance" programmes is to enable a dependent person to function in society, something that the continued use of heroin usually makes impossible. For some people and in some cultures, methadone maintenance programmes have been helpful; however, such programmes may give rise to other serious problems.

- (b) **Psychotherapy.** To be successful, the treatment of drug-dependent patients must involve the use of some form of psychotherapy. In this context, psychotherapy is understood in the broadest sense, from rearranging the patient's daily life in a therapeutic community to the classic group and individual therapy.

Individual and group counselling. usually part of the concept of therapeutic communities, may also be offered separately on an out-patient basis, counselling is a less directive type of psychotherapy and is indicated for patients who accept their disease but need further help to stabilize a substance-free life, counsellors have to be selected carefully, as in many countries their education is not regulated officially and is therefore often inadequate.

Behavior therapy plays an important role in the treatment of dependence and can be carried out in different settings (in- and out-patient, individual and group therapy). An individual treatment plan for each patient is favored; treatment includes cognitive (e.g. accepting an abstinent life), verbal (e.g. saying "no" to offers of drugs or alcohol) and behavioral (e.g. avoiding critical places such as bars, building up new leisure-time activities) aspects.

Psychotherapy may focus on the use of motivational interviewing, in which patients are required to inventory the problems associated with their use of psychoactive substances.

7.3 Rehabilitation

7.3.1 The goal of rehabilitation is to establish and maintain a new substance-free life in a normal social environment, along with optimal health, mental functioning and social well-being. Treatment and rehabilitation often overlap in a way that makes differences difficult to realize for non-specialists, and sometimes the term "rehabilitation" is used about all therapeutic activities following detoxification. Some of the most important elements of rehabilitation are:

- (a) **Aftercare and long-term follow-up.** Treatment, even intensive in-patient care, is unlikely to result in recovery unless it is followed by ongoing assistance. In the workplace, this must include monitoring, preferably by an employee assistance professional or designated peer.
- (b) **Self-help/support groups.** Involvement in a group such as Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) can provide dependent individuals with a continuing source of support during the rehabilitation process, many people around the world have found these

groups invaluable in ensuring recovery or overcoming relapse.

(c) Vocational rehabilitation. Returning to work after undergoing treatment for dependence can be one of the most critical stages in an employee's recovery.

7.3.2 All rehabilitation center certified by MOH & Ministry of Interior of HKJ are accepted by CARC for treatment & Rehabilitation.



Appendices:

Appendix 1. *Employee Interview Checklist*

- Establish identity of the employee (i.e. full name, employee identification number/License, date of birth).
- Inform employee that medical information discussed during the interview is confidential, and may only be disclosed under very special circumstances. Identify those circumstances.
- If the employee holds a CARC medical certificate, advise the employee that information regarding drug test results and information supplied by the employee will be provided to the CARC / AMU as required by appropriate regulation.
- Tell the employee you are calling about the specific drug test he/she underwent on the specific date and at the specific location. Inform the employee for what drug(s) the specimen tested is positive.
- Briefly explain the testing process, discussing screening and confirmation testing, and laboratory reporting.
- Ask for recent medical history, when appropriate.
 - Prescription drugs
 - Over-the-counter drugs
 - Medical or dental procedures
 - Food ingestion
- Request the employee to provide medical records or documentation of prescription for controlled substance when appropriate. Set a specific deadline for receipt of the medical records.
- Request the employee to undergo a medical examination or evaluation, when appropriate. Arrange for medical evaluation.
- Notify the employee that he or she may request a split specimen test, and explain this process. Provide information about payment for this test in accordance with employer's policy, if appropriate. Tell the employee that a split specimen test will not delay verification of the initial test result.
- If the verification process is complete, inform the employee that the appropriate employer official will be notified.
- Offer to answer any further questions.
- Give your name and telephone number in case the employee has any further questions.



Appendix 2. CARC Drugs & Alcohol Testing program form

Verification Worksheet

1.	Employee Name: (First) (Middle) (Last)
2.	Date of birth:
3.	Employee License No :
4.	Date of collection:
5.	Specimen ID No.:
6.	Date medical examination conducted (if applicable): Time:
7.	Examining physician's name: Address: Telephone:
8.	Result:
9.	date received:
10.	Comments:
11.	attempts to contact employee / interview details:
12.	Date employee notified of verified result: Time:
13.	Date employer notified of verified result: Time:
14.	Employer contact: Address: Telephone:
15.	Date CARC notified of verified result & time :
16.	Verification decision
17.	Positive Drug (specify):



18.	Test cancelled & Reason for test cancellation:
19.	General comments:
20.	Medical officer signature:
21.	Date & Place :



Appendix 3. Drug Detection Periods in Urine: -

The approximate detection periods are:

Amphetamines	2-7 days
Barbiturates -General -Secobarbital	2-4 days up to 30 days
Benzodiazepines	up to 30 days
Cocaine -(benzoylecgonine)	2-5 days
Marijuana (THC) -Casual use -Chronic use	2-14 days up to 30 days
Ethanol	12-24 hours
Methaqualone	2-4 days
Opiates	2-4 days
Phencyclidine -Casual use -Chronic use	2-7 days up to 30days
Buprenorphine	2 - 3 days
Heroin	1 - 2 days
Ecstasy	2 - 4 days
<u>LSD</u>	2 - 3 days

