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Agenda Item 24: Aviation Safety and Air Navigation Priority Initiatives

GUIDANCE FRAMEWORK FOR EVALUATING PSYCHOACTIVE SUBSTANCE USE AMONG AVIATION PERSONNEL

(Presented by India)

EXECUTIVE SUMMARY

ICAO Annex 1 — *Personnel Licensing* outlines mandatory Standards prohibiting licensed aviation personnel from operating under the influence of psychoactive substances or engaging in their problematic use. ICAO has passed various resolutions and issued the *Manual on Prevention of Problematic Use of Substances in the Aviation Workplace* (Doc 9654) to help nations prevent substance abuse in aviation workplaces through education, testing, rehabilitation protocols, and harmonized enforcement strategies. In alignment, India has published regulations mandating breath analyzer and psychoactive substance testing for aviation personnel, including crew, air traffic controllers, and others. However, use of new psychoactive substances, advancements in detection technology, and changing operational dynamics, there is a critical need to revise existing procedures. This highlights the need for ICAO to develop new or revised guidance to ensure continued effectiveness in preventing substance misuse across civil aviation.

<i>Strategic Goals:</i>	This working paper relates to <i>Every Flight is Safe and Secure</i> .
<i>Financial implications:</i>	Not applicable
<i>References:</i>	Assembly Resolution A27-12, Assembly Resolution A29-16, Assembly Resolution 33-12, Annex 1 — <i>Personnel Licensing</i> Doc 9654, <i>Manual on Prevention of Problematic Use of Substances in the Aviation Workplace</i>

1. INTRODUCTION

1.1 ICAO Annex 1 — *Personnel Licensing* contains Standards and Recommended Practices (SARPs) adopted by the International Civil Aviation Organization as the minimum Standards for “Personnel Licensing”.

1.2 Para 1.2.7.1 of Annex 1 states that “*Holders of licences provided for in this Annex shall not exercise the privileges of their licences and related ratings while under the influence of any psychoactive substance which might render them unable to safely and properly exercise these privileges*”. Also, para 1.2.7.2 of Annex 1 further states that “*Holders of licences provided for in this Annex shall not engage in any problematic use of substances*”.

1.3 Further, para 1.2.7.3 provides recommendations “*Contracting States should ensure, as far as practicable, that all licence holders who engage in any kind of problematic use of substances are identified and removed from their safety-critical functions. Return to the safety-critical functions may be considered after successful treatment or, in cases where no treatment is necessary, after cessation of the problematic use of substances and upon determination that the person’s continued performance of the function is unlikely to jeopardize safety*”.

1.4 India has published Civil Aviation Requirement (CAR) Section 5 Series F Part III on “Procedure for medical examination of aircraft personnel for alcohol consumption” which outlines the requirements to undergo breath analyzer examination by crew members for all Indian commercial/private flights originating within India. These requirements are also applicable for Indian commercial/private flights originating outside India and landing in India.

1.5 Ministry of Social Justice and Empowerment, Government of India has carried out a study on the extent of the prevalence of this disorder amongst general Indian population and published a report in Feb 2019. The report reveals that after alcohol the use of cannabis and opioids are the next commonly used psychoactive substances in India. Opioids, which includes opium and its various variants etc.

1.6 Based on the report, there remains a possibility of the use of psychoactive substance by those involved with Civil Aviation. Therefore, the scope of testing for use of psychoactive substance was further extended and India published Civil Aviation Requirement (CAR) Section 5 Series F Part V on “Procedure for examination of the aviation personnel for consumption of Psychoactive Substances” describes detailed guidance on random drug test or the consumption of psychoactive substance by flight crew members and air traffic controllers. CAR also encourages other organizations to carry out random drug testing for aircraft maintenance engineers/ certifying staff, trainee pilots and instructors/examiners.

2. DISCUSSION

2.1 ICAO Assembly Resolutions on psychoactive substance use among aviation personnel:

2.1.1 ICAO Assembly 27 strongly support for maintaining civil aviation workplaces free from substance abuse and promoting cooperative initiatives across the international aviation community to educate employees on its dangers. To reinforce this commitment, the Assembly adopted Resolution A27-12, urging the Council to prioritize effective measures aimed at preventing and eliminating substance abuse among crew members, air traffic controllers, mechanics, and other civil aviation personnel.

2.1.2 In ICAO Assembly 29, the assembly responded by adopting Resolution A29-16, which states that “Role of ICAO in the prevention of substance abuse in the workplace”.

2.1.3 Accordingly, in the year 1995, ICAO developed and published first edition of the *Manual on Prevention of Problematic Use of Substances in the Aviation Workplace* (Doc 9654). This ICAO document serves as a tool for decision-makers, enabling nations to devise and implement effective national strategies that enhance civil aviation safety and well-being of civil aviation personnel, for preventing the problematic use of psychoactive substances.

2.1.4 ICAO Doc 9654 provides initial guidance across several critical areas within the aviation industry. It addresses education in the aviation workplace, protocols for identifying issues, and approaches for treatment and rehabilitation, as well as outlining the consequences. Further, this document provides biochemical testing program. This program details information on commonly used psychoactive substances that have the potential for dependence and specifies testing procedures alongside the relevant drug detection periods.

2.1.5 Furthermore, ICAO Assembly Resolution 33-12 directed the Council to enhance existing guidance and develop new provisions that ensure consistent alcohol and drug prevention and testing programmes across all Contracting States, particularly for safety-sensitive personnel. It emphasizes the importance of uniform enforcement and urges States to align their efforts to support aviation safety through harmonized substance abuse policies.

2.2 Practices adopted by India on evaluating psychoactive substance (drugs) use among aviation personnel:

2.2.1 Constitution of committee of expert by DGCA, India

2.2.1.1 In year 2022, DGCA constituted a team of experts to establish the reference cut off values for non-negative, positive screening and confirmatory test respectively of urine sample, for the consumption of psychoactive substance by aviation personnel and identifying the procedure for testing including its modalities. The member of the team constituted the senior doctors from DGCA medical cell, hospitals, laboratory.

2.2.1.2 The committee reviewed the cut off values prescribed by the other Civil Aviation authorities and being used by various laboratories for screening and confirmatory test for detection of following psychoactive substance in urine sample:

- a) amphetamine and amphetamine type stimulants;
- b) opiates and metabolites;
- c) cannabis (marijuana) as THC;
- d) cocaine;
- e) barbiturates; and
- f) benzodiazepine.

2.2.1.3 Based on the study's findings, the committee determined the cutoff values for above psychoactive substances. These values have subsequently been communicated to all laboratories involved in testing samples for psychoactive substances.

2.2.2 Regulation on examination of the aviation personnel for consumption of psychoactive substances:

2.2.2.1 Based on the guidance available and the recommendation of committee report, India published Civil Aviation Requirement (CAR) Section 5 Series F Part V on “Procedure for examination of the aviation personnel for consumption of Psychoactive Substances” describes detailed guidance on random drug test or the consumption of psychoactive substance by flight crew members and Air traffic controllers. This regulation is applicable for:

- a) all scheduled commercial aircraft operators and air navigation service provider shall carryout, random drug testing for the consumption of psychoactive substance by flight crew members and air traffic controllers;
- b) this programme shall ensure that at least 10 per cent of the employees of an organization, are covered in a year;
- c) the organization must ensure that all employees have an equal chance of being tested each time the selection is made; and
- d) in addition, the organizations shall ensure that flight crew member, air traffic control officers, aircraft maintenance engineers/ certifying staff, trainee pilots and instructors/examiners in their employment are tested for consumption of psychoactive substances on the occasions as determined in the regulation.

2.2.2.2 Testing will be done on urine samples collected from the randomly selected employees. The sample is to be collected in a sterile container and labelled as A and B. Screening and confirmatory test will be done on urine samples immediately after the sample is collected. The readings of the test will be observed and noted in front of the employee under video recording.

2.2.2.3 In case sample A is non-negative, then sample B shall be forwarded to the appropriate laboratory for Confirmatory Test. In case the confirmatory test is found positive, the medical-in-charge of the organization shall consult a medical review officer (MRO) to determine if the result was due to a legitimate therapeutic treatment or some other innocuous source.

2.2.2.4 Actions on non-negative test results have been defined in the said regulation, such as immediately removed from the safety sensitive duty, suspension of license for a specific period etc.

2.3 Need for further guidance from ICAO:

2.3.1 Based on the past Assembly Resolution, ICAO may enhance existing guidance and develop new provisions that ensure consistent alcohol and drug prevention and testing programmes across all Contracting States, particularly for safety-sensitive personnel.

2.3.2 Further, ICAO Doc 9654 has a limited guidance for standardized methodology for establishing benchmark values for non-negative or positive test results. This omission leaves States

without a clear framework to evaluate positive detections among civil aviation personnel, indicating a potential area for further regulatory development.

2.3.3 Furthermore, use of new type of drugs, modern technological advancements, evolving operational conditions, and the imperative for periodic updates, a review of the documented procedures and information by ICAO is essential to maintain its relevance and effectiveness within the aviation context.

2.3.4 Therefore, there is urgent need for updation of existing guidance or issuance of new guidance by ICAO for prevention of psychoactive substance use among aviation personnel particularly engaged in safety-sensitive duties.

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