



FEDERATION OF INDIAN PILOTS

FIP/DGCA/26 -13

17th August 2026

To,
The Director General,
Directorate General of Civil Aviation (DGCA),
Sri Aurobindo Marg, Opp Safdarjung Airport,
New Delhi - 110003

Consideration of Oral-Fluid Testing as a Complementary Method under the DGCA Psychoactive-Substance Testing Framework - Revision Of CAR 5/F/V

Dear Sir,

1) The Federation of Indian Pilots (FIP) respectfully submits this representation for the consideration of the Directorate General of Civil Aviation (DGCA) regarding the possible introduction of **oral-fluid testing as a complementary testing methodology** within the existing regulatory framework governing the examination of aviation personnel for consumption of psychoactive substances.

2) We fully recognise that maintaining the highest standards of aviation safety and ensuring that personnel performing safety-sensitive duties are free from the influence of psychoactive substances is of paramount importance. FIP therefore supports robust, scientifically valid, transparent and procedurally fair testing mechanisms for aviation personnel.

3) At present, the DGCA framework under **CAR Section 5 – Air Safety, Series F, Part V, Issue I dated 27 September 2021, effective 31 January 2022**, provides for urine-based testing, including screening, confirmatory testing and subsequent medical review. The CAR also requires random testing of applicable personnel, with at least 10% coverage annually for the categories specified under the CAR.

4) While the existing urine-testing system has an established regulatory and laboratory framework, FIP believes that the increasing scale of Indian aviation operations warrants consideration of additional testing methodologies that can **increase testing capacity, reduce operational disruption and facilitate rapid testing at airports and other operational locations**.

5) International Regulatory Precedent

There is significant international precedent for permitting oral-fluid testing alongside urine testing.



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6) The **Civil Aviation Safety Authority (CASA), Australia**, under its Drug and Alcohol Management Plan framework in CASR Part 99, expressly provides for both urine and oral-fluid testing of persons performing, or available to perform, safety-sensitive aviation activities. This includes flight crew, cabin crew, ground handlers, maintenance personnel, dispatchers, aviation security personnel and refuellers.

7) Similarly, the **U.S. Department of Transportation (DOT)** framework under 49 CFR Part 40 authorises both urine and oral-fluid specimens, subject to prescribed collection, laboratory, chain-of-custody and confirmation requirements. The U.S. framework therefore demonstrates that different specimen matrices can be incorporated into a highly regulated transportation drug-testing system without compromising procedural safeguards.

8) The **GCAA framework in the UAE** also provides an aviation-specific example of on-site oral-fluid screening followed by appropriate laboratory confirmation, while recognising the role of medical assessment in determining the significance of a test result.

9) These international examples demonstrate that oral-fluid testing need not replace urine testing. Rather, the two methodologies can be deployed according to the **purpose of testing, required detection window, operational circumstances and applicable medical and regulatory requirements**.

10) Operational Advantages for Indian Aviation

FIP believes that oral-fluid testing could offer substantial operational advantages in the Indian aviation environment.

11) Oral-fluid collection is generally simpler, directly observable and capable of being undertaken at or near the workplace or airport. It may therefore be particularly suitable for random, targeted, reasonable-suspicion and selected post-occurrence testing.

12) The principal potential advantage is not merely the cost of an individual test kit, but the possibility of substantially reducing **crew/employee downtime, collection time, infrastructure requirements and operational disruption**, thereby allowing greater testing throughput.

13) This may be particularly valuable as the Indian aviation sector continues to expand and the number of safety-sensitive personnel requiring regulatory oversight increases.

14) Oral Fluid Should Complement, Not Automatically Replace, Urine Testing

FIP is **not proposing the immediate replacement of the existing urine-testing system**.



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15) We respectfully propose that DGCA consider a **risk-based hybrid model**, under which:

- a) **Oral-fluid testing** may be used for testing regularly, at random, targeted, reasonable-suspicion, high-volume and selected post-occurrence screening where rapid collection is advantageous.
- b) **Urine testing** may continue to be used where its longer detection window, established laboratory procedures or existing medical/regulatory requirements make it more appropriate.
- c) **Any non-negative screening result** should undergo validated confirmatory laboratory testing before any final regulatory, employment or medical determination.
- d) **Medical review** should continue to be an integral part of the process, particularly where prescribed or legitimate therapeutic medication may explain a confirmed analytical finding.

Such a framework would preserve the strengths of the existing system while providing DGCA with an additional operational tool.

16) **Important Scientific and Procedural Safeguard**

FIP considers it essential that any revised framework maintain a clear distinction between **detection of a substance and proof of impairment**.

17) Neither urine nor oral-fluid testing, by itself, constitutes a direct impairment test. A screening non-negative result should therefore not automatically be interpreted as proof of impairment, misuse or unsafe performance.

18) The appropriate procedural sequence should remain:

Screening → Confirmatory Laboratory Testing → Medical Review → Final Regulatory Determination

This principle is already reflected in the existing DGCA framework, under which a screening non-negative result is followed by confirmatory testing and medical review.

FIP believes that retaining this distinction is essential for maintaining both **aviation safety and procedural fairness**.

19) **Protection of Legitimate Medication Use**

Aviation personnel may legitimately be prescribed medicines that contain, or metabolise into, substances included in a psychoactive-substance testing panel. In addition, certain screening immunoassays may produce preliminary non-negative results because of cross-reactivity with prescription or over-the-counter medicines. Accordingly, a confirmed analytical result should continue to be assessed through an appropriate



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aviation-medical process, including consideration of legitimate therapeutic medication and other medically documented explanations.

20) FIP would therefore support the establishment of a **confidential medication-disclosure and medical-review pathway**, enabling an appropriately qualified Aviation Medical Examiner or designated aviation-medical authority to determine whether a medication is compatible with safety-sensitive duties and whether any temporary operational restriction or further assessment is required.

21) **Proposal for a Controlled DGCA Pilot Programme**

In view of the above, FIP respectfully requests DGCA to consider commissioning a **controlled Indian pilot programme/evaluation project** to assess the feasibility of oral-fluid testing as a complementary component of the existing psychoactive-substance testing system.

22) The evaluation may examine, inter alia:

- a) **Analytical reliability and sensitivity** of approved oral-fluid testing devices;
- b) **Correlation and comparison with existing urine-testing procedures;**
- c) **Collection time and testing throughput;**
- d) **Crew and employee downtime;**
- e) **Operational feasibility at airports and remote stations;**
- f) **Chain-of-custody and specimen-integrity requirements;**
- g) **Laboratory confirmation procedures;**
- h) **Cost-effectiveness of the complete testing programme**, rather than merely the cost of individual test kits;
- i) **Training and qualification requirements for collectors;**
- j) **User acceptance and operational practicality;**
- k) **Appropriate detection windows for different testing circumstances; and**
- l) **Medical-review and regulatory safeguards.**

23) The study material indicates that, under an illustrative planning assumption of 45 minutes for urine collection compared with 15 minutes for oral-fluid collection, oral-fluid collection could theoretically reduce collection workload by approximately 66.7%. We emphasise that these figures are **illustrative planning assumptions and not regulatory performance standards**, and should therefore be validated through an Indian operational trial before being relied upon for policy purposes.



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24) **Proposed Regulatory Approach**

FIP respectfully suggests that DGCA may consider the following approach:

a) **Phase I – Controlled Evaluation:**

Conduct a scientifically supervised pilot programme at selected airports / organisations.

b) **Phase II – Comparative Validation:**

Compare oral-fluid and urine testing with respect to analytical reliability, detection capability, collection integrity, operational efficiency and cost.

c) **Phase III – Regulatory Assessment:**

Based on the evidence generated, determine appropriate amendments, if any, to the existing CAR.

d) **Phase IV – Risk-Based Implementation:**

If demonstrated to be appropriate, permit oral-fluid testing for specified categories and testing circumstances while retaining urine testing where its characteristics provide a regulatory or medical advantage.

This would allow India to adopt technological and operational improvements **without compromising the integrity of the existing safety framework**.

25) **Request for Consideration**

In view of the rapid growth of Indian aviation and the increasing requirement for effective surveillance of safety-sensitive personnel, FIP respectfully requests DGCA to:

- a. Consider oral-fluid testing as a complementary methodology under the Indian aviation psychoactive-substance testing framework;
- b. Commission or facilitate a controlled pilot/evaluation programme to establish its scientific, operational and economic suitability;
- c. Examine the regulatory frameworks of CASA Australia, U.S. DOT, GCAA UAE and other relevant international authorities while developing an Indian model;
- d. Ensure that any implementation incorporates validated laboratory confirmation, appropriate chain-of-custody procedures, qualified collectors and independent medical review;



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e. Maintain the important distinction between **detection of an analyte and proof of impairment**; and

f. Consider a hybrid urine/oral-fluid model rather than treating oral-fluid testing as an immediate replacement for the existing urine-based system.

26) FIP firmly believes that the objective should be to **increase the effectiveness and coverage of aviation safety testing while simultaneously reducing avoidable operational disruption**, without weakening scientific, medical or regulatory safeguards.

27) The proposed approach is therefore intended not as a relaxation of the existing safety regime, but as an opportunity to make it **more efficient, scalable, evidence-based and responsive to the operational realities of modern Indian aviation**.

28) We shall be grateful if DGCA would kindly consider this proposal and, if deemed appropriate, initiate a technical consultation with stakeholders and subject-matter experts for evaluation of a controlled pilot programme.

29) FIP remains committed to the highest standards of aviation safety and would be pleased to provide the detailed comparative study and supporting material for consideration by DGCA.

30) PILOT SENSITIZATION AND AWARENESS REGARDING MEDICINES, PSYCHOACTIVE SUBSTANCES AND ALCOHOL

An effective psychoactive-substance prevention programme should not rely exclusively on testing. **Education and sensitization of pilots are equally important preventive measures.**

31) FIP recommends that DGCA, in association with **AIRLINES AND PILOT ORGANISATIONS**, establish a structured **Pilot Psychoactive-Substance and Medication Awareness Programme**.

32) The objective should be to ensure that every pilot understands that certain **prescription medicines, over-the-counter (OTC) medicines, herbal preparations, supplements and other commonly available products may contain substances that can affect alertness, performance or produce a finding in a drug or alcohol test.**

33) Medicines That May Affect Flight Safety

Pilots should be specifically sensitized regarding medicines that may:

- a) Cause drowsiness or sedation;
- b) Impair judgement or reaction time;
- c) Reduce alertness;



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- d) Affect coordination;
- e) Produce residual effects after sleep;
- f) Interact adversely with alcohol;
- g) Contain prohibited or controlled substances; or
- h) Result in a positive or non-negative drug test.

Particular attention should be given to:

a. Cough and cold preparations

Some preparations may contain alcohol, sedating antihistamines or other active ingredients that may affect fitness for duty.

b. Antihistamines and anti-allergy medicines

Certain first-generation antihistamines may cause significant sedation and impaired alertness.

c. Sleep and anxiety medicines

Sedative or hypnotic medicines may produce residual impairment even when taken many hours before reporting for duty.

d. Strong pain-relieving medicines

Certain analgesics may contain opioid or opioid-like substances and require appropriate medical assessment.

e. Prescription psychiatric or neurological medicines

Some medicines may affect alertness or may require specific aviation-medical consideration.

f. Herbal and traditional medicines

Pilots should not assume that a product is automatically safe for flight merely because it is described as “natural”, “herbal” or “Ayurvedic”.

g. Supplements and performance products

Products obtained through unregulated channels may contain undeclared pharmacologically active ingredients.



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h. Alcohol-containing medicines and preparations

Pilots should be made aware that some medicinal preparations may contain alcohol and that their use must be considered in the context of applicable DGCA alcohol restrictions and fitness-for-duty requirements.

34) “Check Before You Take” Principle

FIP recommends introducing a simple principle throughout the Indian pilot community:

“CHECK BEFORE YOU TAKE.”

35) A pilot should not commence any new prescription, OTC medicine, supplement or herbal preparation without determining:

- a) What are the active ingredients?
- b) Does the product contain alcohol?
- c) Does it contain a controlled/prohibited substance?
- d) Can it cause drowsiness or impaired performance?
- e) What is its residual effect?
- f) Is there an aviation-medical restriction applicable to the medicine?
- g) How long should the pilot remain unfit for flight after taking it?
- h) Does the medicine require consultation with an Aviation Medical Examiner (AME)?

This should become part of the normal professional safety culture of every pilot.

36) Airline Responsibility

Air operators should establish an easily accessible **Medication and Substance Advisory System** for pilots.

37) **Each operator** should provide pilots with:

- a) A list of commonly encountered restricted medicines;
- b) Guidance on OTC medicines;
- c) access to an appropriately qualified aviation medical professional;
- d) A confidential mechanism for medication-related questions;
- e) Guidance concerning alcohol-containing preparations;
- f) Information on prohibited/restricted substances;



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g) Procedures for declaring medication use where required; and

h) Instructions on obtaining medical clearance where necessary.

37) The objective should be **early consultation rather than inadvertent violation**.

A pilot should be encouraged to ask:

“Is this medicine safe and permissible for me to take before operating an aircraft?”

rather than discover the problem through a drug test.

38) **Mandatory Initial and Recurrent Sensitization**

FIP recommends that DGCA consider requiring **initial and recurrent sensitization programmes** for pilots.

I) Initial training

All newly licensed or newly employed pilots should receive a module covering:

- a) DGCA psychoactive-substance regulations;
- b) Drug and alcohol testing procedures;
- c) Commonly encountered medicines;
- d) Prohibited substances;
- e) Legitimate prescription medication;
- f) OTC medicines;
- g) Alcohol-containing preparations;
- h) Residual effects and impairment;
- i) Consequences of non-compliance;
- j) Testing procedures;
- k) Rights and responsibilities; and
- l) Medical consultation procedures.

II) Recurrent training

A refresher programme should be conducted periodically, preferably **at least annually**, and should include updates on:

- New medicines;
- New testing methodologies;



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- Changes in DGCA regulations;
- Emerging psychoactive substances;
- Medication-related incidents;
- Lessons learned from anonymised testing data; and
- Changes in aviation-medical guidance.

39) **Sensitization Should Accompany Increased Testing**

This is particularly important if DGCA increases random testing from the present 10% level.

40) A stronger testing regime should be accompanied by an equally strong **awareness and prevention programme**.

The philosophy should be:

Educate → Prevent → Test → Confirm → Medically Review → Take Appropriate Action

rather than:

Test → Detect → Punish

The former creates a stronger safety culture.

41) **Confidential Medical Consultation**

Pilots should have access to confidential professional advice before taking a medication that could potentially affect their ability to safely perform flight duties.

42) The system should encourage pilots to disclose medication use to an appropriate aviation medical professional without creating a fear that seeking medical advice itself will automatically result in punitive action.

43) This is important because a pilot who is uncertain about a medication should feel able to **seek advice before taking it**, rather than conceal its use. At the same time, where a medication or substance genuinely affects fitness for duty, the overriding principle must remain **flight safety**.

44) **Medication and Alcohol Awareness Card / Digital Tool**

FIP recommends that DGCA and operators consider providing every pilot with a **Medication & Substance Safety Card or digital application** containing:

- a) Common prohibited substances;
- b) Medicines requiring medical consultation;
- c) Sedating medicines;



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- d) Alcohol-containing preparations;
- e) Emergency contact details for the airline medical department/AME;
- f) Basic “fit/not fit to fly” guidance; and
- g) Links to the current DGCA medical guidance.

Such a tool would be particularly useful because pilots frequently travel between cities and countries and may purchase medicines from different pharmacies or jurisdictions.

45) **Recommended Addition to the Indian Framework**

FIP therefore recommends that the proposed DGCA framework incorporate **Pilot Sensitization and Education as a formal preventive component**, alongside increased testing.

The overall framework should become:

a) **EDUCATE**

Mandatory pilot sensitization on drugs, alcohol and medicines.

b) **PREVENT**

Accessible aviation-medical advice before medication use.

c) **TEST**

Frequent, random and unpredictable testing.

d) **DETECT**

Use of validated urine and oral-fluid methodologies.

e) **CONFIRM**

Accredited laboratory confirmation.

e) **REVIEW**

Independent aviation-medical review.

f) **MANAGE**

Appropriate medical, safety and regulatory action.

g) **LEARN**

Use anonymised data to improve the national prevention programme.

46) **Suggested Addition to the Final Recommendations For Awareness**

I would add the following to the **FIP's Specific Recommendations to DGCA**:



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- a) Introduce a mandatory **Pilot Psychoactive-Substance, Drug and Medication Awareness Programme** covering prescription medicines, OTC medicines, herbal/traditional preparations, supplements, alcohol-containing medicines and other substances that may affect fitness for duty or result in a positive drug/alcohol test.
- b) Require initial and recurrent sensitization of pilots regarding “**Check Before You Take**”, with ready access to an Aviation Medical Examiner or appropriately qualified aviation medical professional for confidential advice.
- c) Require operators to provide pilots with current guidance on medicines and substances that may cause impairment, contain prohibited substances or have aviation-medical restrictions.
- d) Establish a confidential mechanism through which pilots can seek medical advice concerning medication **before reporting for flight duty**.
- e) Ensure that pilot education and sensitization form an integral part of any enhanced random-testing programme, so that the system emphasises **prevention and safety rather than testing and punishment alone**.

47) Conclusion

FIP respectfully submits that the **existing 10% annual random-testing requirement should now be reviewed in the context of the present scale, growth and safety-critical nature of Indian civil aviation**. A minimum percentage established several years ago should not remain static when the aviation environment, fleet size, pilot population and operational intensity have changed substantially.

48) For pilots entrusted with the lives of passengers and crew, random psychoactive-substance testing must be **sufficiently frequent, genuinely random and unpredictable** to provide meaningful deterrence and continuous safety assurance. The objective should not merely be to achieve an annual numerical target, but to establish a testing regime in which the possibility of selection remains credible throughout the year.

49) FIP therefore respectfully recommends that DGCA consider **increasing the present minimum annual random-testing coverage from 10% to at least 25% of pilots**, while permitting repeat selection of individuals and introducing a risk-based mechanism for additional testing wherever objectively warranted.

50) At the same time, FIP recognises the operational challenges associated with substantially increasing testing frequency. The introduction of **validated oral-fluid testing as a complementary methodology**, alongside the established urine-testing system, could provide DGCA with a practical means of increasing testing coverage while reducing collection time, crew downtime and operational disruption.



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51) Such an approach would establish a modern framework based on:

Higher Testing Frequency → Genuine Randomisation → Unpredictability → Effective Deterrence → Early Detection → Enhanced Aviation Safety

52) FIP wishes to emphasise that enhanced testing is **not intended to create a punitive environment for pilots**. A transparent, scientifically validated and medically supervised system protects pilots as much as it protects passengers, airlines and the regulator. Appropriate confirmatory testing and medical review must therefore remain integral to the process, particularly where legitimate therapeutic medication or other medical factors may be relevant.

53) FIP accordingly urges DGCA to undertake a **formal, evidence-based review of the present testing frequency** and to consider strengthening the framework in line with the requirements of modern Indian aviation. We believe that increasing the frequency and effectiveness of random testing, while adopting appropriate technological solutions to facilitate such testing, would represent a **significant and proactive enhancement of India's aviation safety architecture**.

54) FIP remains committed to working constructively with DGCA and all stakeholders in developing a testing framework that is **scientifically robust, operationally practical, medically appropriate, procedurally fair and uncompromising in its commitment to flight safety**.

55) **The ultimate objective should be simple: not merely to detect substance misuse after it occurs, but to create a sufficiently strong and continuous deterrent that helps prevent it from affecting aviation safety in the first place.**

Yours faithfully,

(Capt. CS Randhawa)

President,

Federation of Indian Pilots (FIP)

Encl.: Comparative Study on Oral-Fluid Testing as a Complementary Method under the Indian Aviation Psychoactive-Substance Testing Framework.

Copy To:

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