

**60<sup>th</sup> CONFERENCE OF  
DIRECTORS GENERAL OF CIVIL AVIATION  
ASIA AND PACIFIC REGIONS**

*Sendai, Japan*

*28 July – 1 August 2025*

Agenda Item :3:            AVIATION SAFETY

**IMPLEMENTATION OF ELECTRONIC PERSONNEL LICENCES  
(EPL) BY DGCA, INDIA**

(Presented by DGCA India)

**INFORMATION PAPER**

**SUMMARY**

India has implemented an Electronic Personnel Licensing (EPL) system for its Flight Crew, following approval from ICAO, in alignment with Amendment 178 to ICAO Annex 1. The Directorate General of Civil Aviation (DGCA) has developed the e-Governance of Civil Aviation (eGCA) platform, a server-based license management system that supports a secure, user-friendly interface and a mobile application for self-contained electronic visual display devices. This transition from booklet licenses to smart card licenses, and subsequently to EPL, aligns with India's Digital India initiative, positioning India as the second country globally to adopt this innovative system. The EPL system enhances security, accessibility, and efficiency while contributing to environmental sustainability

## IMPLEMENTATION OF ELECTRONIC PERSONNEL LICENCES (EPL) BY DGCA, INDIA

### 1. INTRODUCTION

1.1 The global aviation sector is undergoing a transformative shift toward digitization, driven by the need for enhanced efficiency, security, and sustainability. Digitization reduces reliance on paper-based systems, streamlining processes, improving data accessibility, and minimizing carbon footprints through reduced physical resource use.

1.2 In India, the aviation sector has embraced this global trend through the e-Governance of Civil Aviation (eGCA) project, launched by the DGCA in 2020. The eGCA platform has revolutionized service delivery by transitioning from a paper-based system to a paperless, single-window online ecosystem, significantly enhancing operational efficiency and reducing environmental impact.

1.3 The eGCA platform enables the digitization of records, including the scanning and storage of existing files and license records. Flight crew members register on the platform using a unique identification number, allowing validation of their booklet licenses against digitized records. The platform supports a range of services, including medical assessments, English Language Proficiency (ELP) evaluations, and electronic logbooks, with data stored in user profiles. This centralized data repository reduces dependence on physical records, facilitates inter-directorate information sharing, and streamlines license issuance processes.

1.4 In 2021, DGCA India took a significant step toward digitization by replacing booklet licenses with smart card licenses embedded with QR codes for electronic storage of pilot credentials and real-time updates. Hence, DGCA made its first move towards digitization by replacing booklet licenses with smart card licenses in 2021. These cards bearing QR Code stored pilot credentials electronically and license information being updated in real time.

1.5 The rapid growth of the Indian aviation sector necessitated a more flexible, secure, and globally recognized licensing system, prompting the adoption of EPL in alignment with Amendment 178 to ICAO Annex 1. On 20 February 2025, India rolled out the first phase of EPL, focusing on Commercial Pilot Licenses (CPL) and Flight Radio Telephone Operator Licenses (FRTOL). Subsequent phases will expand EPL to include Airline Transport Pilot Licenses (ATPL), Assistant Flight Instructor Ratings (AFIR), and Flight Instructor Ratings (FIR).

### 2. DISCUSSION

2.1 The EPL system, integrated with the eGCA platform, represents a paradigm shift in aviation licensing, offering transformative benefits in safety, efficiency, financial savings, and environmental sustainability. Key features of India's EPL system include:

- 1) The EPL using a Server-Based License Management software accessible via a dedicated mobile application installed on self-contained electronic visual display devices, ensuring seamless access to license data for pilots and authorities.
- 2) Secure Communication and Offline Mode: The system supports secure internet-based communication between the Licensing Authority and mobile devices, with an offline mode for data display, ensuring accessibility in areas with limited connectivity
- 3) Active Security Features: In conformance with ICAO guidelines, the EPL incorporates active security features to distinguish it from static images, including digital signatures of the issuing officer and timestamps for issuance and last synchronization with the DGCA server. These features ensure authenticity and real-time data updates.

- 4) Global Accessibility and Streamlined Verification: EPL enables anytime, anywhere access to license information, facilitating rapid verification by global aviation authorities and operators, thus enhancing operational efficiency.
- 5) Safety and Efficiency Benefits: The EPL system minimizes errors associated with manual processes, enhances data integrity, and supports real-time updates, contributing to safer aviation operations.
- 6) Financial and Environmental Benefits: By eliminating the need for physical license production, storage, and maintenance, EPL reduces costs and paper usage, contributing to a lower carbon footprint and aligning with global sustainability goals.

2.2 Expanding the adoption of the EPL framework across more nations will significantly strengthen the global aviation community by fostering a sustainable and streamlined licensing ecosystem. A large pool of data thus generated, would benefit the airline operators, stakeholders, aviation community at large in planning their resources for optimum utilization by analyzing the pool of data readily available.

2.3 Whilst the contracting states may have adequate guidelines for implementing the interim solution of EPL, several varied challenges exist for final implementation. The list of challenges inter-alia is as mentioned below:

- a) Lack of guidelines for final implementation.
- b) Lack of standardization in QR code formats,
- c) Difficulties in capturing photograph-related information and the use of static applicant signatures.
- d) Limitations in accessing data from other digital identity sources such as passport, Biometric etc.

2.4 In view of the above-mentioned aspects, there is a need to collate challenges faced by other countries and to formulate a harmonized regulation to mitigate the challenges that exists.

2.5 India's adoption of the EPL system through the eGCA platform marks a significant milestone in aviation licensing, aligning with global digitization trends and ICAO's innovation objectives. The system's advanced security, accessibility, and sustainability features position it as a best practice model for Member States. DGCA India is committed to sharing its expertise and experience to support other Member States in adopting EPL systems

### **3. ACTION BY THE CONFERENCE**

3.1 The Conference is invited to note the information contained in this Paper.

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