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**AGENDA ITEM 3: AVIATION SAFETY**

**CHINA CEASING TO ISSUE PAPER CIVIL AIRCRAFT PILOT  
LICENSES AND FULLY USING THE ELECTRONIC LICENSES  
FOR DOMESTIC AND INTERNATIONAL OPERATIONS**

(Presented by the People's Republic of China)

**INFORMATION PAPER**

**SUMMARY**

This information paper introduces the whole evolution process of China's implementation of paperless pilot license management system, from the launch of the Electronic Personnel License (EPL) Project in 2015 to the official cessation of paper pilot licenses in September 2023. It also introduces the active contributions made by China in drafting ICAO EPL standards, determining global applicable principles, key provisions and technical framework as well as developing offline verification functions and guidance material. China is willing to take advantage of China's development of the digital economy to promote the global civil aviation personnel license management into a new era of digitization through the construction of the framework of the global mutual recognition system for the EPL and also would like to strengthen communication and exchanges with ICAO Contracting States regarding the promotion and implementation of the EPL, and assist in the transition of personnel license management for international aviation into the "cloud era".

## **CHINA CEASING TO ISSUE PAPER CIVIL AIRCRAFT PILOT'S LICENSES AND FULLY USING THE ELECTRONIC LICENSES FOR DOMESTIC AND INTERNATIONAL OPERATIONS**

### **1. INTRODUCTION**

1.1 Under the background of China's national strategy of digitization/ electronization of government administrative licensing processes and documents, the Civil Aviation Administration of China (CAAC) launched the Electronic Personnel License (EPL) Project for civil aircraft pilots in 2015, and fully implemented the EPL domestically in China in September 2016. Since the implementation of the project, the electronic license system has been in stable operations and the technical standards have become increasingly mature. The efficiency of license application and approval has been greatly improved while the cost of maintaining qualification records by operators has been significantly decreased. Thus, the project has been widely recognized by the majority of users.

1.2 In the process of formulating and implementing relevant domestic regulations and standards, CAAC actively shares its practical experience with international community, advocates and assists the International Civil Aviation Organization (ICAO) in completing the relevant amendments to Annex 1 of the International Civil Aviation Convention, and steadily promotes the transposition of China's mature EPL standards into international standards. The main work includes: in September 2016, CAAC submitted the working paper "ELECTRONIC LICENSES FOR AIRCRAFT PILOTS" (A39-WP/334) to the 39th ICAO Assembly, requesting the Assembly to study the feasibility of EPL and establish an expert group to promote the project; CAAC fully participated in the meetings of the ICAO Air Navigation Bureau's Electronic Personnel License Task Force (EPL-TF), studying and drafting relevant amendments to Annex 1 and EPL implementation guidance materials; according to ICAO requirements, CAAC continuously provided best practices in the process of drafting ICAO EPL standards, clarified the globally applicable basic principles, key provisions, and technical framework of the EPL, assisted ICAO in successfully verifying the global offline verification function based on the blockchain, established a global offline verification management program framework, and took the lead in developing the global implementation guidance manual. On March 7, 2022, the 8th meeting of the 225th ICAO Council reviewed and approved the 178th amendment to Annex 1 "Personnel Licensing" regarding the Standards and Recommended Practices (SARPs) for the Electronic Personnel License (EPL) issuance system. This amendment came into effect on November 3, 2022.

1.3 Based on the 178th amendment to Annex 1, ICAO issued the Electronic Bulletin EB 2023/11 in March 2023 officially announcing the implementation of EPL in international operations, specifying China as the first Contracting State to comply with the ICAO EPL implementation standards, and providing three means of electronic license verification during international operations: automatic online verification triggered by scanning QR code shown in EPL holder's corresponding application program; manual online verification by searching the database of the license issuing authority through the ICAO encrypted website; offline verification, assisted by the standardized Verification Job Aid Template.

1.4 Throughout the launch and implementation process of the EPL project, CAAC effectively coordinated the development, use, and promotion of both domestic and international scenarios, and built a global institutional framework for the interoperability and mutual recognition of electronic licenses. Based on promulgation of the ICAO Electronic Bulletin, CAAC launched a pilot period for comprehensive implementation of electronic licenses for international operations commencing from March 23 to June 30, 2023. According to the data provided by ICAO, a total of 67 overseas inspections and verifications were recorded during the pilot period, covering Australia, Japan and States from the America and Europe region. No negative report was received regarding the validity and verification methods of EPL, and the success rate of scanning EPL QR codes was 98.5%. In addition, according to ICAO feedback, the other two supplementary verification methods also functioned well during the pilot period.

1.5 In consideration of the progress of both domestic and international standards and system

construction of the EPL, as well as the assessment of the overall situation of the trial operation abroad, CAAC decided to officially cease issuing paper civil aircraft pilot licenses in September 2023, thus formally entering the era of paperless pilot license management.

## **2. DISCUSSION**

2.1 Electronic licenses realize the paperless management of the entire license issuing process, and through the electronic signature technology and online verification technology, information confidentiality, integrity, authenticity, and non-repudiation of operations can be ensured. Meanwhile, license management costs can also be greatly reduced with the additional benefits of the simplified management processes and enhanced management efficiency.

2.2 License management digitalization is a global development trend, and China is willing to leverage the advantages of digital economy to make contributions in terms of digital governance standards and solutions. China also aims to promote global civil aviation license management to enter a new era of digitization through the establishment of a global interoperable and mutual recognition system for electronic licenses.

2.3 CAAC will continue to cooperate with ICAO to complete the drafting of the EPL guidance manual, and further improve the global offline verification institutional framework and technical paths.

2.4 CAAC will continuously optimize the EPL user experience, develop additional functions for EPL, and enhance the EPL data collection capabilities.

2.5 In case of any questions, suggestions, or comments concerning the EPL verification process during ramp inspection, Contracting States may contact with CAAC through the contact information provided in the ICAO Electronic Bulletin for the prompt resolution of the related issues and the optimization of the subsequent user experience and verification mechanism.

2.6 CAAC is willing to strengthen communication and exchanges with Contracting States on the promotion and implementation of the EPL and provide technical support for the EPL construction and implementation to the civil aviation authorities in need through the existing bilateral and multilateral platforms, with an objective to contribute to the comprehensive construction of a paperless “cloud era” for international aviation license management.

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

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

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