



ASSEMBLY — 42ND SESSION

TECHNICAL COMMISSION

Agenda Item 24: Aviation Safety and Air Navigation Priority Initiatives

ESTABLISHING A GLOBAL DATABASE FOR PERSONNEL LICENSE'S AND TRAINING CENTER CERTIFICATIONS

(Presented by Kazakhstan)

EXECUTIVE SUMMARY

This working paper proposes the establishment of a global database infrastructure dedicated to aviation personnel licenses and training center certifications. The initiative aims to address the increasing need for a unified, internationally accessible verification system amid growing cross-border aviation activities.

The database would include licenses issued by National Aviation Authorities (NAAs) and certifications granted to training centers by their respective NAAs. Additionally, certifications issued by globally recognized authorities such as the European Union Aviation Safety Agency (EASA) and the Federal Aviation Administration (FAA) may also be included. By developing a standardized and secure verification platform, ICAO can support mutual recognition of qualifications, reduce administrative burden, and enhance global aviation safety oversight.

Action: The Assembly is invited to:

- request ICAO to develop global standards and technical specifications for interoperable aviation personnel certificate verification systems;
- recommend the establishment of a dedicated working group under the appropriate ICAO expert panel to design a unified digital infrastructure framework and implementation guidelines for Member States;
- encourage ICAO to propose a phased global implementation roadmap for the database, incorporating lessons learned and best practices from existing national or regional systems;
- note that Kazakhstan is prepared to voluntarily support ICAO's efforts by offering its experience and technical capabilities to assist in the initial development and validation of such a global database system.

<i>Strategic Goals:</i>	This working paper relates to <i>Every Flight is Safe and Secure</i>
<i>Financial implications:</i>	Financial implications to be determined following a comprehensive feasibility study.
<i>References:</i>	Annex 1 — <i>Personnel Licensing</i> Doc 10184, <i>Assembly Resolutions in Force (as of 7 October 2022)</i> Doc 10004, <i>2026-2028 Global Aviation Safety Plan (GASP)</i> Doc 9841, <i>Manual on the Approval of Training Organizations</i> Doc 9750, <i>Global Air Navigation Plan (GANP)</i> National Aviation Personnel Licensing Regulations

1. INTRODUCTION

1.1 The aviation sector is experiencing increasing cross-border activity and personnel mobility, necessitating internationally recognized and verifiable systems for managing personnel qualifications.

1.2 While some States have established national electronic license registries, their formats and accessibility are not harmonized, limiting international recognition and efficient verification.

1.3 ICAO Annex 1 — *Personnel Licensing* and associated guidance materials emphasize the need for robust oversight of licensing and training, but do not yet provide a digital mechanism for interstate verification.

1.4 A unified global platform would enable seamless information exchange, improve regulatory efficiency, and enhance the integrity of aviation safety oversight.

2. DISCUSSION

2.1 The proposed solution involves establishing a secure, distributed global database that enables real-time verification of aviation personnel certificates and training center certifications. This system would provide Member States with instant access to verify the validity and current status of certificates issued by other Member States.

2.2 The system would feature real-time certificate verification across all participating Member States, secure data protection ensuring privacy and confidentiality, standardized data formats based on ICAO requirements, and integration capability with existing national systems.

2.3 Implementation would follow a phased approach beginning with foundation development including establishment of global standards and technical specifications, development of core system infrastructure, creation of governance framework, and pilot testing with participating Member States.

2.4 The second phase would focus on regional expansion through implementation of full operational capabilities, development of training and support programs, and establishment of a comprehensive verification network. The final phase would achieve global deployment with scaling to all participating Member States and implementation of advanced features.

2.5 The system would deliver enhanced safety through immediate verification of certificate validity and current status, real-time updates on certificate suspensions or revocations, improved fraud detection and prevention, and better tracking of recurrent training compliance.

2.6 Operational efficiency would be achieved through substantial reduction in verification processing time, reduced administrative burden on aviation authorities, simplified personnel deployment across jurisdictions, and lower operational costs for airlines and operators.

2.7 A governance structure coordinated by ICAO could include a Global Database Steering Committee with Member State representatives, technical working groups for standards development, implementation support and guidance programs, and monitoring and compliance oversight.

2.8 This framework would ensure standardized verification processes improving compatibility, enhanced trust and cooperation between Member States, improved information sharing for safety analysis, and strengthened global aviation governance.

3. CONCLUSION

3.1 The establishment of a global database for aviation personnel certificates represents a critical advancement in international aviation safety and efficiency. This initiative addresses fundamental challenges in current verification systems while providing a secure foundation for enhanced international cooperation in aviation personnel management.

3.2 The proposed system offers significant opportunities for improved safety oversight, reduced operational costs, and enhanced personnel mobility.

3.3 Current database technologies and the aviation industry's growing digital capabilities create optimal conditions for successful global implementation. The urgent need for improved verification systems and the potential for substantial operational benefits provide strong justification for immediate action.

3.4 Kazakhstan's Civil Aviation Administration has developed comprehensive expertise in aviation database systems and stands ready to volunteer the work to the global implementation of this critical initiative. Through successful domestic experience with integrated certificate management systems, Kazakhstan has demonstrated both the technical capability and operational benefits of modernized verification infrastructure and is committed to contributing technical expertise and resources to support this global initiative.

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