



**WORKING PAPER**

**ASSEMBLY — 42ND SESSION**

**TECHNICAL COMMISSION**

**Agenda Item 24: Aviation Safety and Air Navigation Priority Initiatives**

**GLOBAL IMPLEMENTATION OF THE  
ELECTRONIC LICENSE FOR AVIATION PERSONNEL**

(Presented by the United Arab Emirates)

**EXECUTIVE SUMMARY**

This paper proposes the global implementation of the electronic license for aviation personnel as a foundational mechanism for aviation digital transformation. It highlights the benefits of this approach in enhancing security, operational efficiency, and global interoperability across all personnel licensing domains, including but not limited to licensed pilots, air traffic controllers, aircraft maintenance engineers, and remote piloted aircraft system (RPAS) operators.

To promote regulatory harmonization and mobility, the paper recommends amending Annex 1 — *Personnel Licensing* to include a Standard mandating recognition of ICAO-compliant electronic licenses by all Contracting States, irrespective of their domestic implementation status. It also addresses the inclusion of RPAS licensing within the digital framework as part of ICAO's evolving competency oversight landscape.

The United Arab Emirates reiterates its commitment to supporting ICAO in advancing the global digital transformation of licensing systems and stands ready to share technical expertise, lessons learned, and capacity-building support, particularly in alignment with the No Country Left Behind (NCLB) initiative.

**Action:** The Assembly is invited to:

- a) endorse the continued development and phased implementation of the Electronic License for Aviation Personnel under ICAO coordination;
- b) request ICAO to lead a feasibility study, in coordination with Member States and relevant expert groups, to assess the global recognition of ICAO-compliant electronic licenses, with a view to informing future amendments to Annex 1 or the development of related guidance material;
- c) support the inclusion of remote piloted aircraft system licensing within the electronic licensing framework to promote consistency and integration across all licensing categories; and
- d) encourage Member States to participate in ICAO-led pilot initiatives and digital transformation efforts related to electronic licensing implementation.

*Strategic  
Goals:*

This working paper relates to *No Country Left Behind* and *The International Civil Aviation Convention and other Treaties, Laws and Regulations address all Challenges*.

<i>Financial implications:</i>	This working paper has no financial implications.
<i>References:</i>	Annex 1 — <i>Personnel Licensing</i> Doc 9379, <i>Manual of Procedures for Establishment and Management of a State's Personnel Licensing System</i>

## 1. INTRODUCTION

1.1 The aviation industry is undergoing a significant digital transformation. Traditional paper-based licenses for aviation personnel are increasingly vulnerable to fraud, administrative delays, and inefficiencies.

1.2 The electronic license for aviation personnel initiative aligns with ICAO's strategic vision for a digitally integrated aviation system. It offers a secure, globally interoperable solution for the issuance, validation, and management of all categories of aviation licenses.

1.3 However, the lack of harmonized recognition of electronic licenses by all Contracting States remains a barrier to operational mobility and regulatory efficiency.

1.4 As a proactive contributor to ICAO's digital agenda, the United Arab Emirates is actively engaged in modernizing aviation licensing frameworks. Through knowledge exchange, regional engagement, and pilot projects, the UAE is prepared to assist States particularly developing and capacity-constrained ones in transitioning to ICAO-compliant electronic licensing systems, in line with the objectives of the No Country Left Behind (NCLB) initiative.

## 2. DISCUSSION

### 2.1 Advantages of implementing the Electronic License for Aviation Personnel

2.1.1 Electronic licenses enhance aviation personnel documentation by incorporating secure technologies such as encryption, digital signatures, and blockchain. These features protect against fraud and ensure data integrity. Real-time updates and automated validation processes help reduce administrative workload and expedite license verification for authorities and service providers.

2.1.2 The digital format supports international interoperability, enabling cross-border recognition of licenses and facilitating global workforce mobility. Seamless integration with regulatory systems further strengthens compliance oversight and supports timely, data-driven decision-making.

### 2.2 Key implementation benefits

2.2.1 Electronic licensing streamlines the issuance and verification of aviation personnel licenses, reducing administrative workload and processing time. It enables real-time validation of license status and endorsements, enhancing oversight and operational coordination.

2.2.2 Standardized recognition protocols help reduce regulatory inconsistencies across jurisdictions, supporting global harmonization and enabling seamless cross-border acceptance of licenses.

2.2.3 The UAE emphasizes that digital transformation should be inclusive and globally accessible. As such, any global move toward electronic licensing must be accompanied by efforts to support States that require technical assistance. The UAE is committed to working through ICAO to ensure that implementation efforts leave no country behind.

### 2.3 **Amendment proposal to Annex 1 – Personnel Licensing**

2.3.1 It is proposed to amend Annex 1, Chapter 1, by introducing a Standard requiring all Contracting States to recognize ICAO compliant electronic licenses for aviation personnel, even if their own systems have not yet adopted such digital solutions.

2.3.2 The proposed Standard could read as follows:

*"Contracting States shall accept electronic licenses for aviation personnel, issued and maintained in accordance with ICAO Digital Licensing Guidelines, as valid for the purposes of recognition, validation, or conversion, regardless of the State's own implementation status of electronic licensing."*

### 2.4 **Integration of RPAS licensing**

2.4.1 The expansion of remote piloted aircraft system operations and emerging technologies reinforces the need to integrate these personnel into the electronic licensing ecosystem. Including remote pilots, air traffic controllers, aircraft maintenance engineers, and other license holders within a unified digital framework ensures transparency, standardization, and safe oversight of competencies across all aviation roles.

2.4.2 Electronic licensing ecosystem can support automated RPAS pilot qualification verification for cross-border operations, especially in beyond visual line-of-sight (BVLOS) scenarios.

## 3. **CONCLUSION**

3.1 The global implementation of the Electronic License for Aviation Personnel presents a transformative opportunity for ICAO and its Member States to modernize licensing practices, enhance operational efficiency, and enable secure cross-border validation of aviation professionals.

3.2 This initiative not only represents a strategic modernization effort but also reflects a commitment to equitable capacity development. The UAE affirms its readiness to partner with ICAO and Member States to ensure that electronic licensing is accessible, scalable, and supportive of the No Country Left Behind initiative.