



Agenda Item 4A: Initiatives for the Development and sustainability of air transport in the Region

APPROVAL OF A STANDARDIZED MODEL RELATING TO IMPLEMENTATION OF ELECTRONIC LICENSE

(Presented by Brazil)

This paper addresses the implementation of an electronic version of Licenses issued to Brazilian civil aviation professionals and the feasibility to share this solution with ICAO SAM States, granting an optimized use of its resources and a faster way of technical information interchange regarding the licenses issued by each State.

RAAC/17 Seventeenth Meeting of Civil Aviation Authorities of the South American Region is invited to approve the working paper.

ICAO Strategic Objectives:

A: Safety

B: Air navigation capacity and efficiency

1. Introduction

1.1 As in most of the ICAO member States, Brazil needed to print all the licenses issued to Civil Aviation Professionals. This printing effort can be translated into an inefficient expenditure of the CAA's financial and human resources. And this inefficiency jeopardizes the performance of other relevant certification and surveillance activities performed by the CAA.

1.2 In addition to this inefficiency, Brazilian licenses did not bring any information regarding the validity of any ratings (technical, medical or language proficiency) granted to an aviation professional.

1.3 Other relevant aspect regarding Brazilian Licensing procedures is the previous maintenance of photo and signature registers in its database, which represented more IT costs transferred into ANAC Brazil and a Security accountability regarding this personal information that should not be held by the Agency, as an ANAC license is not an Official Identification Document – OID.

1.4 To optimize the PEL licenses issuance procedure, ANAC Brazil PEL Office was challenged to provide a solution to face the emerging and growing necessity of cutting expenditures related to this routine.

1.5 Some relevant technical aspects that helped in the optimization of the process were mapped by the PEL Office staff. These aspects can be summarized into two major characteristics: the fact that the Brazilian PEL Office is centralized; and that all of its licenses issuance procedures are supported by structured databases and systems.

1.6 Given that technical scenario, the development of an electronic version of the Brazilian License was the next natural step.

2. Discussion

Structured Database

2.1 As already mentioned, all the data regarding the technical ratings of pilots, mechanics and flight attendants are structured in databases, ensuring that any needed information related to these professionals' ratings (technical, medical and language proficiency) are made available on line, in a well established web-based IT solution.

Authentication procedures

2.2 Information authentication and correct correlation between the aviation professional and its license information is a relevant question that was addressed.

2.3 Regarding the correct correlation between the aviation professional and its license information, a unique QR Code, related to any binomial (aviation professional x license information), was created.

2.4 In addition to the QR Code developed, a specific page at ANAC Brazil web site was developed to provide, in a structured way and following the definitions of Annex 1, Chapter 5, all the information regarding any Brazilian license.

2.5 To enter this system and have access to a professional technical datasheet, one must have: ANAC Brazil ID Code – CANAC, a Social Security number and birth date. This procedure ensures a higher level of confidentiality.

On-line versus off-line scenario

2.6 To prevent problems regarding an off-line scenario, the QR Code is unique for the binomial (aviation professional x license information) and can be printed or saved as a picture in any electronic device carried by the aviation professional, then being carried anywhere with its owner.

Validity verification

2.7 In the previous model, no information regarding the ratings (technical, medical or language proficiency) validity was made available. This lack of information was the first effort employed by ANAC Brazil aiming at reducing printing expenses.

2.8 As a result, the license database needed to be consulted after any ramp inspection to verify the validity of each rate issued to the aviation professional.

2.9 With the electronic license, on the other hand, valid data is made available at any time by the system, making it possible to verify, real-time, compliance with the regulations.

Information supply during Ramp Inspections

2.10 During Ramp Inspections, the verification of the technical ratings of any professional can be verified instantaneously, allowing the inspector to have updated information related to the Brazilian license owned by the aviation professional.

2.11 In an off-line scenario, the QR Code of the professional can be photographed by the inspector for further verification.

Interoperability between Contracting States

2.12 Personnel Training and Licensing - PTL Group is discussing ways of implementing an electronic license worldwide.

2.13 One of the major concerns is related to the authenticity of the information made available to any Contracting State.

2.14 To address this concern, the ICAO EPL Task Force has established a set of technical requirements that were easy and quickly inserted into the original Brazilian solution.

2.15 As a result, in addition to ICAO's decision that it will host all the technical data regarding civil aviation professionals worldwide, the interoperability of data between Contracting States is assured.

2.16 By assuring interoperability of data, the next step will be the development of a procedure to establish the automatic validation of foreign licenses. This issue will be addressed at the end of the ICAO EPL Launch Project.

ICAO EPL Launch Project

2.17 ICAO EPL Task Force has established that all technical data regarding any civil aviation professional should be sent to a specific ICAO IT server.

2.18 Also, the Contracting States must provide a QR Code, in addition to the original ones, that will drive the researcher to this specific ICAO IT Server that, then, will provide the information regarding the professional being researched.

2.19 The solution briefly exposed is in final test phase and will be launched by the end of March 2023, having data from licensed civil aviation professionals from Brazil, China and Australia.

2.20 This given scenario explains the feasibility and acceptance of Brazilian EPL solution worldwide and will make possible the on-line and on-time Brazilian professionals license verification by international civil aviation inspectors.

3. Conclusion

3.1 The implementation of an electronic license version is feasible, possible and represents an important optimization in a State's resource allocation.

3.2 It also makes possible electronic interoperability of technical data and instant verification of ratings during Ramp Inspections, even for international flights.

3.3 Authentication methods can be adjusted to ICAO technical requirements in line with its objective, allowing needed information made available by any IT solution, from any Contracting State, to be checked and confirmed.

4. **Suggested action**

4.1 In light of the above, the Meeting is invited to agree to the following Conclusion:

CONCLUSION RAAC17/C0X		<i>Definition of electronic version as the worldwide primary version regarding the issuance of licenses</i>
What? That States: a) Consider the Brazilian experience and model to support the development of an electronic license that matches ICAO technical requirements b) Consider the electronic version of licenses and the interoperability of related data as the first step for the automatic validation of foreign licenses. That ICAO SAM: c) foster the States efforts in having a Regional electronic license interoperability system; d) establishes a target date to have a Regional integrated solution for electronic licenses and to make an electronic license version the primary way of issuance of a State license.	Expected Impact <input checked="" type="checkbox"/> Political/Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Operational/Technical	
Why?: granting an optimized use of its resources and a faster way of technical information interchange regarding the licenses issued by each State		
When?: <i>To be determined</i>	Status: <input checked="" type="checkbox"/> Valid <input type="checkbox"/> Superseded <input type="checkbox"/> Completed	
Who?: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> Secretariat <input type="checkbox"/> Other (Specify):		