



WORKING PAPER

ASSEMBLY — 39 TH SESSION

TECHNICAL COMMISSION

Agenda Item 35: Aviation safety and air navigation standardization

PERSONNEL LICENSING IN ELECTRONIC FORMAT

(Presented by Argentina)

EXECUTIVE SUMMARY

Chapter 5 of Annex 1 — *Personnel Licensing* to the Chicago Convention establishes the features that personnel licenses must have, specifying that, for their issue, Civil Aviation Authorities (CAA) shall use first quality paper or any other kind of appropriate material, including plastic cards, where all data stated in Section 5.1.1.2 of the Annex of reference shall be available.

The aim of the present working paper is to promote the analysis of the feasibility to implement an electronic personnel licensing system. This new system shall be checked through security measures and specially designed devices with access to the databases, adopted by each CAA with that end in mind.

In case the proposal shall be accepted by the Assembly, the corresponding technical studies should be initiated and, eventually, the amendment proposal to Annex 1 should be elaborated.

Action: The Assembly is invited to:

- a) give the Council the necessary directions in order to analyze the feasibility of using an electronic format for issuing personnel licenses, evaluating its benefits and drawbacks, and also to consider the security systems that will have to be adopted if the system is implemented.
- b) in case the result of such analysis is a positive one, Annex 1 should be revised and the necessary amendments introduced for the issue, implementation and approval of electronic licenses.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	The activities gathered herein will be carried out subject to the availability of economical resources in the regular programme budget for the period 2017-2019, and/or with extra budgetary contributions.
<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 English and Spanish versions provided by Argentina.

1. BACKGROUND

1.1 Article 29 of the Chicago Convention states that flight crew members must carry the corresponding licenses on board any aircraft used in international air navigation.

1.2 Initially, the Standard and Recommended Practices (SARPs) regarding the issue of Personnel Licensing were approved by ICAO Council on April 18th, 1948 through the adoption of Annex 1 to Chicago Agreement, which came into force on September 15th, 1948.

1.3 Chapter 5 of Annex 1 states all the features related to Personnel Licensing. In this regard, Section 5.1.2 mentions that first quality paper or any other appropriate material, including plastic cards, shall be used, where the required information for the different licenses or certificates of competence must be available. However, the document does not make reference to the incorporation of security measures that aim at avoiding or making it difficult to forge a license.

1.4 The scope and value of a license can be found clearly defined in Paragraph 1.2 of Doc. 9379: "*Manual on procedures for the establishment and managing of a State system for the issue of Personnel Licensing*", which indicates that a license is the document by means of which the Issuing State considers that its holder has proved to have an internationally acceptable level of competence. Additionally, it states that such competence is the result of the correct selection, instruction and training processes, and not just the license itself, although it represents a reliable proof.

1.5 However, none of the documents mentioned above considers the possibility of issuing licenses or certificates in an electronic format which might contain information likely to be checked and compared with trustworthy databases.

2. ANALYSIS

2.1 It is public knowledge that, since the adoption of Annex 1, important technological changes have taken place worldwide.

2.2 The requirements listed in that Annex at the time were really useful elements to assure the consecution of the objectives mentioned in Doc. 9379. However, nowadays in this highly technological and digitalized world in which aviation operates, this work load implies higher costs for the national aviation authorities but does not necessarily result in a better service, neither for the personnel nor for the aviation community.

2.3 In this regard, when comparing paper format documents with those in electronic format, the latter show a noticeable superiority in the storage capacity and, more importantly, in aspects inherent in the security since they undergo a much higher security process than the former ones. It must be taken into account that nowadays, thanks to the technological advances, paper format documents may be easily faked by any person with minimum computer skills. Besides, the constant use of paper or plastic cards is opposed to the efforts made by States to reduce the use of paper in favor of environmental protection.

2.4 On the other hand, thanks to the enormous ongoing developments in the system and electronic areas, electronic documents have become the most versatile and appropriate tool to face the challenges of an aviation industry that is constantly expanding and calls for accompanying solutions.

2.5 Even though ICAO does not provide for the issue of licenses using the electronic format since such modality was unknown by the time Annex I was adopted, it does allow the use of electronic information devices and records which are necessary to issue the licenses. In this regard, Doc. 9379 in Paragraph 2.7.1: “Confidential Records Keeping”, mentions that the right to have access to the different documents, either in electronic or paper format, must be defined for each of the staff members.

2.6 There are several valuable records within commercial aviation which clearly show that implementing an electronic licensing system would lead to getting more benefits, faster and more efficient operations and, above all, a substantial improvement in aviation security and safety.

2.7 Probably, the most well-known examples are the electronic bill and the electronic boarding pass. In this case, even when paper format issue is still in use, all the information is already digitalized, and a barcode is used and scanned as passengers board the plane (electronic format).

2.8 Finally, it is important to mention that issuing electronic licenses will result in lower issuing costs for States and a more efficient service for users, since they will not need to be present at the administrative offices to start and trace the process; besides, licenses will not be posted but sent to them by electronic mail. All this will lead to greater security measures, thus reducing the possibility of document forgery.

— END —