



WORKING PAPER

ASSEMBLY — 39TH SESSION

TECHNICAL COMMISSION

Agenda Item 37: Other issues to be considered by the Technical Commission

COLLECTION AND MAINTENANCE OF INDIVIDUAL AERODROME CERTIFICATION DATA

(Presented by the United States)

EXECUTIVE SUMMARY

Aerodrome certification is an essential element of operational safety in the aviation system. As States certify their aerodromes and / or maintain their aerodrome certification for international operations, in accordance with specifications contained in Annex 14 – *Aerodromes* to the Convention on International Civil Aviation and other relevant ICAO documents, it is worth to note that individual aerodrome certification data is not standardized or readily available. Currently, there is not a central standardized source or repository that captures data on the status of individual aerodrome certification worldwide. If aerodrome certification data is needed, information must be solicited from either ICAO regional offices or individual States. The United States proposes that a common set of data elements in a standardized format be defined, collected, and maintained in a central repository by ICAO. The information should be available to any ICAO Member State or international organization on ICAO’s integrated Safety Trend Analysis and Reporting System (iSTARS), available on the Secure Portal, or similarly agreed upon platform.

Action: The Assembly is invited to:

- a) support the need for ICAO to collect and maintain a centralized database on individual aerodrome certification status;
- b) recognize a benefit of the above data collection is being able to determine the progress ICAO is making in influencing certification on international aerodromes; and
- c) recognize that the data could also be used to assess where (in which States or at which aerodromes) to apply resource or offer assistance.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	Financing within ICAO Regular Programme Budget.
<i>References:</i>	Annex 14, Volume I — <i>Aerodrome Design and Operations</i> Annex 14, Volume II — <i>Heliports</i> Doc 9060/5, <i>Reference Manual on the ICAO Statistics Programme</i> Doc 9774, <i>Manual on Certification of Aerodromes</i> Integrated Safety Trend Analysis and Reporting System (iSTARS) Universal Safety Oversight Audit Programme (USOAP) Protocol Questions

1. INTRODUCTION

1.1 Aerodrome certification is an essential element of operational safety in the aviation system. As States certify their aerodromes and/or maintain their aerodrome certification for international operations, in accordance with specifications contained in Annex 14 — *Aerodromes* of the Convention on International Civil Aviation and other relevant ICAO documents, it is worth noting that individual aerodrome certification data is not standardized or readily available. Currently, a central standardized source or repository that captures data on the status of individual aerodrome certification worldwide does not exist.

1.2 Several ICAO documents introduce requirements and guidelines to assist States with the process of aerodrome certification. Some documents provide definitions to assist with the clarification on the scope or meaning of the terminology. Audit programmes, like USOAP, further provide information on what it is required for aerodrome certification. For the most part, these documents provide specifications and guidance for States to establish a regulatory framework in certifying international aerodromes. It is duly noted that States may differ in the approach of certification standards, as well as the methodology to report on the status of aerodrome certification.

2. BACKGROUND

2.1 Requirements and guidance on aerodrome certification is available in ICAO publications. Paragraph 1.4.1 of Annex 14 to the Convention on International Civil Aviation addresses that “States shall certify aerodromes used for international operations in accordance with the specifications contained in this Annex as well as other relevant ICAO specifications through an appropriate regulatory framework.”

2.2 Documents that provide definitions for aerodrome terminology are available in ICAO documents. Section A of Chapter 3 Aerodrome Certification Model Regulations in ICAO Doc 9774, *Manual on Certification of Aerodromes*, defines a certified aerodrome as “an aerodrome whose operator has been granted an aerodrome certificate” (p. 3-2). This means that certification standards can differ from State to State. Chapter 2.3 Airports in ICAO Doc 9060/5, *Reference Manual on the ICAO Statistics Programme*, defines an international airport as “any airport designated by an ICAO Member State in whose territory it is situated as an airport of entry and departure for international air traffic, where the formalities such as customs, immigration, public health, agricultural quarantine and similar procedures are carried out” (p. I-2-8).

2.3 Three Universal Safety Oversight Audit Programme (USOAP) Protocol Questions (PQ): 8.081, 8.083, and 8.086, specifically assess whether a State has effectively implemented an aerodrome certification procedure. Protocol Question 8.081 evaluates whether the State has promulgated regulations detailing the requirements for the certification of aerodromes, and including the criteria to determine if an aerodrome should be certified. Protocol Question 8.083 evaluates whether the State has established a process for the certification of aerodromes. Protocol Question 8.086 evaluates whether the aerodrome regulatory authority fully implements the certification requirements. This information is available on the iSTARS database, PQ Tester Application.

2.4 While ICAO indicates States that have an aerodrome certification process, and certain basic certification may be available in the Aeronautical Information Publication (AIP), there is currently no central source for information on the certification for individual aerodromes. A standardized methodology to report on the status of aerodrome certification is currently not available on ICAO

iSTARS, as of June 2016. There are a few applications within iSTARS that provide information on aerodromes worldwide, however, none of the applications report on the status of aerodrome certification. If aerodrome certification data is needed, information must be solicited from either ICAO regional offices or individual States.

3. DISCUSSION

3.1 The purpose of the aerodrome certification is to create a mechanism by which the regulator, ICAO, and industry can show that airports meet a minimally safe standard for aircraft in an aerodrome and its local airspace. Many sources within the aviation industry and regulatory bodies rely on up to date and relevant information regarding aerodrome certification. Per the Note to Amendment 10 to Annex 14, “When an aerodrome is granted a certificate, it signifies to aircraft operators and other organizations operating on the aerodrome that, at the time of certification, the aerodrome meets the specifications regarding the facility and its operation, and that it has, according to the certifying authority, the capability to maintain these specifications for the period of validity of the certificate. The certification process also establishes the baseline for continued monitoring of compliance with the specifications.”

3.2 In efforts to support and assist various States in the different regions with aerodrome certification, a few observations were noted with regards to iSTARS data, and the data provided by the ICAO regional offices.

3.3 The data available on iSTARS showed the USOAP State Effective Implementation scores for the three Aerodromes and Ground Aids (AGA) protocol questions, as addressed in paragraph 2.3, currently span from a low of .08 to a high of .60—a wide range. These scores indicate the State’s degree of adoption and regulation of an aerodrome certification process. This however, does not indicate the certification status of any individual aerodrome.

3.4 An alternate option to obtain aerodrome certification data was to contact the ICAO regional offices or the individual States or extracting information from individual AIPs. For the most part, the ICAO regional offices were very responsive and provided their collected data on aerodrome certification. One observation made from the various aerodrome certification reports was that the data collected had different formats with disparate data elements. One report provided information on Aerodrome Code, Aerodrome Name, and Use Designation (e.g., scheduled, unscheduled transport; regular/alternate use) as one data element. Another report provided information on Aerodrome Code, Aerodrome City, Aerodrome Name and Use Designation in one field. That report also included separate fields on: Alternate Aerodrome Codes and City, Rescue and Fire Fighting (RFF) Category, Runway Numbers, Runway Type, and Runway Pavement Strength. A third report provided Country and Aerodrome Code in one field, the Aerodrome City and Name in a second field, and the Use Designation in a third field. There were multiple variations of data elements in the different reports, including information on international aerodromes and certification. When standardizing the data format, the data collector must do their best to integrate and standardize the data.

3.5 With the information available and the varying ways of collecting and reporting of aerodrome certification status, it is very difficult to obtain relevant information on the certification of individual aerodromes. There is currently no central source for information on individual status of aerodrome certification data. The United States proposes a standardized data template with elements that would capture the status of aerodrome certification, as well other pertinent data, as shown in the appendix. Furthermore, the United States proposes that aerodrome certification data be available on one

of the airport applications in iSTARS, or an additional application be developed that captures this information.

4. **CONCLUSION**

4.1 The objective of this paper is to standardize the reporting of individual aerodrome certification data worldwide, and to make the data readily available by facilitating access to the information through iSTARS. Since the methodology to report the status of aerodrome certification worldwide varies with the different regions, the United States recommends a standard and centralized process in the reporting of the data. The ICAO iSTARS web-based system provides a central standardized repository to collect and gather aerodrome certification information.

APPENDIX

PROPOSED INFORMATION

1.1 In efforts to standardize and harmonize the data collection on aerodrome certification, the United States proposes to collect data elements on identifier and certification information. The identifier information should include: Member State, Aerodrome ICAO 4-Letter Identifier, Aerodrome Name, Aerodrome City, and the certification information include: Aerodrome Certification Status (Yes/No), Date of Certification, if applicable (Month and Year), the date (Month and Year) of the most recent time the airport was inspected or recertified to insure adherence to certification requirements is being maintained, and the date (Month and Year) of the most recent verification that Airport Rescue and Fire Fighting (ARFF) capability meets requirements. If additional elements are deemed essential in the collection of airport certification, those elements should be added in the collection form template. An example template with notional data is provided for review.

1.2 Example Template with Notional Data:

Certification of Aerodromes Sample Template							
Member State	Aerodrome ICAO 4-Letter Identifier	Aerodrome Name	Aerodrome City	Aerodrome Certification Status (Yes/No)	Date of Initial Certification (Month, Year)	Date of Most Recent Re-Certification or Inspection (Month, Year)	Date of Most Recent ARFF Compliance Verification (Month, Year)
United States	KORD	Chicago O'Hare International	Chicago	Yes	May, 1973	July, 2015	July, 2015
Australia	YSSY	Kingsford Smith International	Sydney	Yes			
Bolivia	SLLP	Aeropuerto Internacional de El Alto	La Paz				
Jordan	OJAQ	King Hussein International	Aqaba				

1.3 The information collection on aerodrome certification is envisioned to continue between the Member States and the ICAO regional offices, through the aerodrome office. Member States would provide the certification status for each of their international aerodromes to their ICAO regional office, and the ICAO regional office would then forward the data to the ICAO Montreal iSTARS staff. The iSTARS staff would add the data to the iSTARS database and make the data available to Member States through one of the applications, possibly accessible via the Airport Briefing application.

1.4 The ICAO iSTARS team would maintain currency of the information. On an annual basis or when aerodrome certification updates are available, Member States would provide any updates to the original certification status information to their aerodrome liaison in the ICAO regional office. The aerodrome liaison would then forward the data to the iSTARS staff, which then would be added to iSTARS.