



International Civil Aviation Organization

**WORKING PAPER**

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English only<sup>1</sup>

**ASSEMBLY — 36TH SESSION**

**TECHNICAL COMMISSION**

**Agenda Item 30: Other safety matters**

**RECOMMENDATIONS ON AMENDMENT OF ICAO ANNEX 14**

(Presented by China)

**EXECUTIVE SUMMARY**

This paper notes issues relating to Annex 14 — *Aerodromes Volume I — Aerodrome Design and Operations*, to the Chicago Convention, especially the difference between the scope of SMS and the scope of technical standards and application requirements in Annex 14. In the end of this paper, recommendations on how to amend Annex 14 are put forward.

**Action:** The Assembly is invited to discuss and adopt the recommendations to promote airport safety.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective A: Safety – <i>Enhance global civil aviation safety</i>
<i>Financial implications:</i>	Not applicable
<i>References:</i>	Annex 14, Doc 9774, <i>Manual on Certification of Aerodromes</i> and Doc 9137, <i>Airport Services Manual</i> , Part 6, etc.

<sup>1</sup> Chinese and English versions provided by China.

## 1. INTRODUCTION

1.1 Annex 14 — *Aerodromes Volume I — Aerodrome Design and Operations*, to the Chicago Convention contains the Standards and Recommended Practices on the design and operations of global airports. With the expansion of global airports and continuous increase of their business volume, it is very difficult for the content in Annex 14 to reflect reality. Therefore, it is necessary for ICAO to amend and improve Annex 14.

## 2. ISSUES CONCERNING ANNEX 14

2.1 Annex 14 has two characteristics: firstly, from the perspective of airport areas, it mainly involves manoeuvring area; secondly, from the perspective of nature, it touches upon “hardware” standards to a large extent. We believe that at present Annex 14 fails to cover all business scopes of airports.

2.2 The coverage of Annex 14 is narrow. In Annex 14, there are few Standards for setting apron markings and signs, which leads to unfavorable situation: firstly, complicated and confusing apron markings and signs in airports around the world have caused much inconvenience to pilots; secondly, the design and maintenance of the of apron markings, signs of airlines have become even more non-standardized.

2.3 Annex 14 does not define the scope of safety management system (SMS). The third edition (1994) of Annex 14 stipulates, “the Certified aerodromes should have SMS in place prior to November 24, 2005.” Amendment 8 to Annex 14 specifies, “the Contracting States shall require, as part of their safety program, that a certified aerodrome operator implements a safety management system acceptable to the State.” In Amendment 8, a single section is dedicated to SMS. Although it gives the definition of safety management system (a systematic approach to managing safety including the necessary organizational structures, functions, policies and procedures), the scope of SMS is not defined.

2.4 Doc 9774 requires that airport certification manuals contain SMS-related content, but it does not provide a clear scope of SMS. It just emphasizes “SMS does not cover areas relating to aeronautical information system, aeronautical meteorology, airport finance management and passenger and cargo services.” In addition, as for airport security, Doc 9774 just covers content pertinent to aircraft ground operation safety, such as fencing and airside lighting. The reason is that “this task is probably resumed by another department.”

2.5 We believe that probably it is not appropriate to define the scope of Annex 14 and an airport certification manual based on the business scope of airport authorities. A convincing counterevidence is: even if airports do not do it themselves instead of asking contractors to de-ice airport pavements (which is not rarely seen in the world), it is still necessary for the airport certification manual to contain the content about pavement de-icing required by Doc 9774.

### 3. RECOMMENDATIONS

3.1 The Principle for Improvement. No matter how large the business scope of airport authorities is, Annex 14 should contain all the business scopes of airports and provide as many Standards and Recommended Practices as possible. Therefore, even if some airport authorities' business scope is small, the organizations having other business can have standards to follow. According to those Standards and Recommended Practices, airport authorities will also find it easier to reach agreements with those organizations and supervise their implementation thereof. As a matter of fact, such a principle has already found its expression in the chapter concerning removal of disabled aircraft in Annex 14. Many airports in the world do not have the equipment and facilities needed to remove disabled aircraft. In other words, they are not able to remove disabled aircraft. Even some airports do not do this business at all. However, Annex 14 still requires that every airport formulate a plan to deal with the removal of disabled aircraft.

3.2 Detailed recommendations of improvement:

- a) Since more and more airports are becoming e-airports, information system, especially the departure system plays a significant role in normal operation of airports. ICAO should work out Standards and requirements related to the design and operation of such a system;
- b) "Aerodrome" in the title of Annex 14 should be replaced by "airport" and the content of this Annex should be expanded to include all the business scope of airports, for example, information management system;
- c) Add standards on apron markings, signs and markers;
- d) Add content about runway incursion prevention. The addition of a specific chapter about it is preferred;
- e) Include ASDE as a standard in Annex 14;
- f) Add a standard provision on the issue concerning "Part of a runway is still in operation, while part of it is closed";
- g) Making corresponding amendment to such relevant documents as Airport Services Manual, Airport Planning Manual, Aerodrome Design Manual and Doc 9774; and
- h) Add content about clearance management, especially making clear the provisions on this issue in Annex 14, 4.3.2 and in Obstacle Restrictions in Airport Services Manual.