



NINTH MEETING OF THE AERODROMES OPERATIONS AND PLANNING SUB-GROUP

**WP18 - ADDRESSING GAPS BETWEEN ICAO ANNEX 14 VOLUME I AND
STOLPORT MANUAL (DOC 9150)**

**Agenda Item 4: Provision of AOP in the Asia/Pacific Region
- Planning & Design of Aerodromes**

**Bangkok, Thailand
30 June - 4 July 2025**

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Objectives



1

Ensure uniform understanding on the categorization of STOLport.

2

Ensure uniform understanding on the applicability of Annex 14, Volume I and Doc 9150.

3

Address inconsistencies between design specifications in Annex 14, Volume I and Doc 9150 and its impact.

4

Recommend ICAO to provide a clear definition for STOLport and incorporation of formal SARPs for STOLport under Annex 14 Volume I or provide further clarification on the applicability of Annex 14 Volume I to STOLport.

Introduction



A stolport is an airport whose physical characteristics, visual and non-visual aids and total infrastructure are created to support safe and effective public air transport in and out of densely populated urban areas as well as to and from rural areas with difficult terrain (ICAO Doc 9150).

1 ICAO Annex 14 Volume I - Aerodrome Design and Operations

Establishes the international SARPs for the design and operation of aerodromes in ensuring uniformity and safety across global aviation infrastructure. However, the specifications contained in the Annex 14, Volume I **are not applicable to STOLports**.

2 ICAO Doc 9150

Developed as a technical reference providing practical guidance on the planning, design and implementation of STOLport.

1) Definition of STOLport

- No explicit definition of a STOLport in either Annex 14 or Doc 9150.
- In the Malaysian context, STOLports are typically classified as:
 - non-international aerodromes of code number 1 or 2,
 - operating under day Visual Meteorological Conditions (VMC), and
 - supporting non-instrument runways.

2) Ambiguity in STOLport Categorization

Para 1.1.3 of Doc 9150 states that “for the purpose of this manual, the STOLport design aeroplane is assumed to be an aeroplane that has a **reference field length of 800 m or less**. In size, the STOLport design aeroplane is assumed to have a **wingspan of up to 26 m** and a **main landing gear measurement of up to 9 m**”.

Annex 14, Vol I
Table 1-1. Aerodrome reference code
(see 1.6.2 to 1.6.4)

Code element 1		
Code number	Aeroplane reference field length	
1	Less than 800 m	< 800 m
2	800 m up to but not including 1 200 m	Between 800 m to < 1200 m
3	1 200 m up to but not including 1 800 m	
4	1 800 m and over	
Code element 2		
Code letter	Wingspan	
A	Up to but not including 15 m	< 15 m
B	15 m up to but not including 24 m	Between 15 m to < 24 m
C	24 m up to but not including 36 m	Between 24 m to < 36 m
D	36 m up to but not including 52 m	
E	52 m up to but not including 65 m	
F	65 m up to but not including 80 m	

Discussions

3) Inconsistencies Between Design Specifications in Annex 14 & Doc 9150

No.	Item	Annex 14 Volume I	Doc 9150
1	Width of Runway Strips	<p><u>Code 1 or 2, non-precision approach runway</u> At least 70 m on each side of the centre line of the runway</p> <p>(Reference: Clause 3.4.4)</p> <p><u>Code 2, non-instrument runway</u> At least 40 m on each side of the centre line of the runway</p> <p><u>Code 1, non-instrument runway</u> At least 30 m on each side of the centre line of the runway</p> <p>(Reference: Clause 3.4.5)</p>	<p><u>For operations at night or in instrument meteorological conditions</u> 75 m on either side of the centre line</p> <p><u>Day-time operations in visual meteorological conditions</u> At least 45 m on either side of the centre line</p> <p>(Reference: Para 3.3.2.1)</p>

Discussions



3) Inconsistencies Between Design Specifications in Annex 14 & Doc 9150

No.	Item	Annex 14 Volume I	Doc 9150
2	Length of Runway Strips	<p><u>Code 1, non-instrument</u> At least 30 m before the threshold and beyond the end of the runway or stopway</p> <p><u>Code 2 or Code 1 instrument</u> At least 60 m before the threshold and beyond the end of the runway or stopway</p> <p>(Reference: Clause 3.4.2)</p>	<p>60 m beyond each runway end or stopway</p> <p>(Reference: Para 3.3.2.2)</p>

4) Applicability of Annex 14, Volume I and Doc 9150

Clause 1.2.2 Annex 14, Vol I

“The specifications, unless otherwise indicated in a particular context, shall apply to all aerodromes open to public use in accordance with the requirements of Article 15 of the Convention. The specifications of Annex 14, Volume I, Chapter 3, shall apply only to land aerodromes. **The specifications in this volume shall apply, where appropriate, to heliports but shall not apply to STOLports**”

Note.— Although there are at present no specifications relating to stolports, it is intended that specifications for these aerodromes will be included as they are developed. In the interim, guidance material on stolports is given in the Stolport Manual (Doc 9150).

4) Applicability of Annex 14, Volume I and Doc 9150

Para 1.2.2 of Doc 9150

“Although the specifications of Annex 14, Volume I, Aerodrome Design and Operations do not apply to STOLports, much of the guidance material in this manual conforms to the International Standards and Recommended Practices set forth in that Annex”.

Implications

Lack of Clarity and Consistency

Lead to inconsistent interpretations among States, regulators, and aerodrome operators.

Certification Challenges

Infrastructure compliant with Doc 9150 may be deemed insufficient when assessed under Annex 14 standard.



Operational Limitations

Ambiguity in the classification of aircraft and aerodrome codes may hinder the development of infrastructure that can accommodate evolving STOL-capable aircraft, particularly those with characteristics approaching the thresholds of Code 2/C.

Safety Oversight Concerns

Due to differing interpretations of applicable standards, necessitating corrective actions and delaying project approvals.

Recommendations



Definition of STOLport

- Define clearly the definition of STOLport.
- Clarify whether aerodromes classified as Code 2 and Code C are also considered STOLport.



Develop SARPs for STOLport

- Consider the development and incorporation of formal SARPs specific to STOLports under Annex 14.
- Provide further clarification regarding the applicability of Annex 14, Volume I to STOLport operations, including its use in conjunction with Doc 9150.

Conclusion



The meeting is invited to:

- **note the information contained in this paper;**
- **recommend that ICAO consider to develop dedicated SARPs for STOLports under Annex 14 or provide clearer guidance on how Annex 14 and Doc 9150 should be applied together; and**
- **discuss any relevant matters as appropriate.**



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Thank You



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