



WORKING PAPER

AIR NAVIGATION COMMISSION

**APPROVAL OF DRAFT REPORT TO COUNCIL ON AMENDMENT 12 TO
ANNEX 14, VOLUME I
(Item No. 19814)**

(Presented by the Director of the Air Navigation Bureau)

SUMMARY

This paper presents a draft report to Council for Amendment 12 to Annex 14 — *Aerodromes*, Volume I — *Aerodrome Design and Operations*. The amendment proposal introduces the first edition of *Procedures for Air Navigation Services – Aerodromes* (PANS-AERODROMES) (Doc 9981). An impact assessment is included as an appendix to the paper.

Action by the Air Navigation Commission is in paragraph 2.

COORDINATION

AMO, OPS

REFERENCES

- *AN-WP/8669 and DP Nos.
1,2,3 and 4
AN-WP/8669.PDP
AN-WP/8837 and DP No. 1
AN-WP/8837
AN Min. 193-12
AN Min.196-10
AN Min. 196-11
AN Min. 198-xx
- *Annex 14, Volume I
PANS-AERODROMES
Doc 9981)
- *Report of the PASG meetings
([https://portal.icao.int/PASG/Page
Default.aspx](https://portal.icao.int/PASG/PageDefault.aspx))
- *State letter AN 4/1.1.53-13/81

*Principal references

1. INTRODUCTION

1.1 On 25 and 26 June 2014, the Air Navigation Commission (196-10 and 11) conducted its final review of the proposed amendment to Annex 14 — *Aerodromes*, Volume I — *Aerodrome Design*

and Operations, and proposed *Procedures for Air Navigation Services — Aerodromes* (PANS-AERODROMES, Doc 9981), arising from a proposal developed by the PANS-Aerodromes Study Group (PASG). The Commission agreed that the proposed amendment to Annex 14, Volume I, as contained in Attachment B to State letter AN 4/1.1.53-13/81 and as modified by the Commission, be included as Amendment 12 to Annex 14, Volume I, with a proposed applicability date of 12 November 2015.

1.2 On 20 October 2014, the President of the Council, in response to PRES OBA/2342 and acting under delegated authority, approved the PANS-AERODROMES on behalf of the Council.

1.3 The agreed draft amendments, as contained in the draft report to Council, constitute Amendment 12 to Annex 14, Volume I, with an effective date in July 2015 and an applicability date of 12 November 2015.

2. ACTION BY THE AIR NAVIGATION COMMISSION

2.1 The Air Navigation Commission is invited to approve the attached draft report to Council concerning Amendment 12 to Annex 14, Volume I.

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Appendix A



New SARP / PANS Proposal

IMPACT ASSESSMENT

1. What is the problem that this proposal is designed to solve?

Please include reference to Jobcard / ASBU / work programme item, as applicable

Develop a PANS-Aerodromes outlining procedures for the operation of the aerodrome, to support and maintain operations, complementary to Annex 14 Volume I (Job Card AP006)

2. What alternatives to SARPs/PANs were considered to solve the problem?

None	Circular	Manual	Policy	Other (please explain)
x				

3a. What is the impact of this proposal on a **State**?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The impact of this proposal represents a large financial cost to the State (rulemaking, hiring, training, oversight, capital, etc)	<i>Large cost</i>	State			<i>Negligible cost</i>
<i>Rationale: The first edition of the PANS-AERODROMES, referred in the Annex 14, Volume I amendment would involve States generating a regulatory amendment and implementing a robust oversight process where differences between national practices and those in the PANS-AERODROMES need to be published in their national AIPs.</i>					
Implementing this proposal will have a positive safety impact	<i>Increased safety</i> State				<i>Reduced safety</i>
<i>Rationale: The first edition of PANS-AERODROMES referred in the Annex 14, Volume I amendment addresses priority areas revealed by the USOAP audit results and is expected to improve the level of implementation of aerodrome certification and conduct of safety assessment at aerodromes.</i>					
Implementing this proposal will have a positive security impact	<i>Enhanced security</i>				<i>Reduced Security</i>
<i>Rationale: As PANS-AERODROMES is only focused on safety, there is no link between this proposal and security concerns.</i>					
Implementing this proposal will have a positive environmental impact (reduction in atmospheric or surface pollutants, noise, etc)	<i>Reduced Emissions/ Noise</i>				<i>Increased Emissions/ Noise</i>
<i>Rationale: The primary purpose of the first edition of PANS-AERODROMES is to support the SARPs contained within Annex 14, Volume I. Therefore it does not contain any new procedures impacting on environmental targets.</i>					

Implementing this proposal will have a positive impact on the efficiency of the air transportation system	<i>Increased efficiency</i> State				<i>Decreased efficiency</i>
<i>Rationale: Chapter 3 of PANS-AERODROMES addresses situations where compliance with the design provisions stipulated in Annex 14, Volume I, is either impractical or physically impossible. It provides procedures to assess the compatibility between aeroplane operations and aerodrome infrastructure/ operations when an aerodrome accommodates an aeroplane that is different to that normally operated at the aerodrome or exceeds the certificated characteristics of the</i>					

3b. Do the benefits of this proposal justify the cost of implementing the proposal?

Yes	No	Not sure	Not applicable
State			

4a. What is the impact of this proposal on **Industry**?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The impact of this proposal represents a large financial cost to industry (compliance, new equipment, training, etc)	<i>Large cost</i>		Industry		<i>Negligible cost</i>
<i>Rationale: The procedures in PANS-AERODROMES complement existing Annex 14, Volume I SARPs, therefore no major financial commitments are envisaged on the aerodrome operators with the implementation of the procedures in PANS-Aerodromes.</i>					
Implementing this proposal will have a positive safety impact	<i>Increased safety</i> Industry				<i>Reduced safety</i>
<i>Rationale: : The procedures in PANS-AERODROMES are expected to assist aerodrome operators to improve the certification of aerodromes at aerodromes that are yet to be certified. At aerodromes that are already-certified, additional procedures, in particular those relating to continuing certification/ oversight, is expected to further improve the level of safety.</i>					
Implementing this proposal will have a positive security impact	<i>Enhanced security</i>				<i>Reduced Security</i>
<i>Rationale: As PANS-AERODROMES is only focused on safety, there is no link between this proposal for security concerns.</i>					
Implementing this proposal will have a positive environmental impact (reduction in atmospheric or surface pollutants, noise, etc)	<i>Reduced Emissions/ Noise</i>				<i>Increased Emissions/ Noise</i>
<i>Rationale: The primary purpose of the first edition of PANS-AERODROMES is to support the SARPs contained within Annex 14 Volume I. Therefore it does not contain any new procedures they may have an impact on environmental targets.</i>					
Implementing this proposal will have a positive impact on the efficiency of the air transportation system	<i>Increased efficiency</i> Industry				<i>Decreased efficiency</i>
<i>Rationale: : The procedures in Chapter 3 of PANS-AERODROMES on how to safely accommodate larger aeroplanes at smaller aerodromes is expected to improve overall system capacity and efficiency, in particular, as congested aerodromes.</i>					

4b. Do the benefits of this proposal justify the cost of implementing the proposal?

Yes	No	Not sure	Not applicable
Industry			

5. How long would it take for States and Industry to implement this proposal?

Already implemented	0-1 yrs	1-2 yrs	2-5 yrs	5-10 yrs	more than 10 yrs
		States/Industry			



COUNCIL — 204th SESSION

Subject No. 14.1.1: International Standards and Recommended Practices (SARPs)

ADOPTION OF AMENDMENT 12 TO ANNEX 14, VOLUME I

(Presented by the President of the Air Navigation Commission)

EXECUTIVE SUMMARY

This paper presents a proposal of the Air Navigation Commission for Amendment 12 to Annex 14 — *Aerodromes*, Volume I — *Aerodrome Design and Operations*. The proposed amendment introduces the *Procedures for Air Navigation Services – Aerodromes* (PANS-AERODROMES) into current provisions in Annex 14, Volume I as well as establishing a new section 1.7, Chapter 1, Annex 14, Volume I. The new section contains Standards and Recommended Practices (SARPs) relating to the use of specific procedures for aerodrome operations.

Having examined the technical circumstances associated with the implementation of the amendments, the Commission considers that an effective date in July 2015 for the amendment and an applicability date of 12 November 2015 would be suitable for the implementation of these provisions.

Action: The Commission recommends that the Council:

- adopt, as Amendment 12 to Annex 14, Volume I, the amendment to the Standards and Recommended Practices as contained in Appendix A to this paper;
- approve, as part of the said amendment, the amendment to the Notes as contained in Appendix A to this paper;
- approve the Resolution of Adoption in Appendix B to this paper; and
- approve, as part of the said amendment, the amendment to the Publications and Foreword of Annex 14, Volume I as contained in Appendix C to this paper.

<i>Strategic Objectives:</i>	This working paper relates to the Strategic Objectives on Safety and on Air Navigation Capacity and Efficiency.
<i>Financial implications:</i>	States and industry: medium (States) to minimal (Industry)

References:	*AN-WP/8669 and DP Nos. 1,2,3 and 4 AN-WP/8669.PDP AN-WP/8837 and DP No. 1 AN-WP/8837.PDP AN Min. 193-12 AN Min.196-10 AN Min. 196-11 AN Min. 198-xx *Annex 14, Volume I PANS-AERODROMES (Doc 9981) *Report of the PASG meetings (https://portal.icao.int/PASG/Pages/Default.aspx) *State letter AN 4/1.1.53-13/81
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1. INTRODUCTION

1.1 This report deals with a proposal of the Air Navigation Commission for the amendment of Annex 14 — *Aerodromes*, Volume I — *Aerodrome Design and Operations* arising from the Secretariat with the assistance of the PANS-Aerodromes Study Group (PASG), in coordination with the Aerodromes Panel, regarding the use of the first edition of the *Procedures for Air Navigation Services – Aerodromes* (PANS-AERODROMES, Doc 9981).

1.2 On 20 October 2014, the President of the Council, in response to PRES OBA/2342 and acting under delegated authority, approved the PANS-AERODROMES on behalf of the Council.

1.3 On [D] [M] 2015, the Commission (198-xx) reviewed AN-WP/xxxx containing the draft report to Council on the adoption of Amendment 12 to Annex 14, Volume I and approved the report.

2. BACKGROUND

2.1 The development and review of the proposed amendment has followed the established process, as shown in the table below:

Amendment concerning	Preliminary review by ANC and WP no.	State letter and date	Final review by the ANC and WP no.	No. of replies at final review ¹
Procedures on operations of aerodromes	4 June 2013 (ANC 193-12) AN-WP/8669 AN-WP/8669.PDP	AN 4/1.1.53-13/81 11 December 2013	25 and 26 June 2014 (ANC 196-10 and 196-11) AN-WP/8837 and DP No. 1 AN-WP/8837.PDP	64 Contracting States (19) 3 int. orgs Total: 67 replies

¹ Number in parentheses is the number of Council Member States who have replied.

2.2 The Commission has agreed that the amendments listed in the table above be presented to the Council for inclusion in Amendment 12 to Annex 14, Volume I and thus recommends to the Council to take action as stated in the executive summary.

3. RATIONALE, IMPLEMENTATION ISSUES AND COST IMPACT

3.1 Amendment concerning procedures on operations of aerodromes

Rationale

3.1.1 The proposed amendments relating to the procedures on operations of aerodromes stem from the work of the Secretariat with the assistance of the PASG in coordination with the Aerodromes Panel. They address priority areas revealed by the USOAP audits in the areas of aerodrome certification, conduct of safety assessment and compatibility studies. The proposed amendments have the objective of enhancing aerodrome safety and efficiency in a globally harmonized manner by making reference to the procedures in the recently approved first edition of the PANS-AERODROMES.

3.1.2 The procedures in Chapters 2 and 3 of the PANS-AERODROMES are expected to improve the level of implementation of aerodrome certification worldwide and facilitate the conduct of safety assessment at aerodromes.

3.1.3 The procedures in Chapter 4 of the PANS-AERODROMES concerning the operation of larger aeroplanes at smaller aerodromes is expected to improve overall system capacity and efficiency, in particular, at congested aerodromes.

Implementation issues

3.1.4 No significant implementation issues are foreseen for the Annex 14, Volume I amendment proposals concerning the use of the procedures in the PANS-AERODROMES.

Cost impact

3.1.5 In general, the financial impact to States and aerodrome operators is expected to be medium (States) to minimal (Industry) as the procedures referred in the amendment proposals are based largely on existing Annex 14, Volume I specifications. The new provisions would require States to generate a regulatory amendment and to implement a robust oversight process to identify differences between national practices and those in the PANS-AERODROMES which would need to be published in their national aeronautical information publications. For aerodrome operators, the procedures in PANS-AERODROMES complement existing Annex 14, Volume I SARPs and, consequently, no major financial commitments are envisaged. The provisions in the new section 1.7 of Chapter 1, Annex 14, Volume I address those situations where compliance with the design provisions is either impractical or physically impossible. By enabling the use of the PANS-AERODROMES, the amendment to Annex 14, Volume I is expected to improve the efficiency and capacity of existing aerodromes without adversely affecting safety.

4. EFFECTIVE AND APPLICABILITY DATES

4.1 The Air Navigation Commission, having examined the technical circumstances associated with the implementation of the amendment, considers that an effective date of **xx** July 2015 for

the amendment and a proposed applicability date of 12 November 2015, would be suitable for the implementation of these provisions.

Farid Zizi

APPENDIX A

PROPOSED AMENDMENT TO INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES

Annex 14 — Aerodromes Volume I — Aerodrome Design and Operations

NOTES ON THE PRESENTATION OF THE PROPOSED AMENDMENT

The text of the amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading, as shown below:

1. ~~Text to be deleted is shown with a line through it.~~ text to be deleted
2. New text to be inserted is highlighted with grey shading. new text to be inserted
3. ~~Text to be deleted is shown with a line through it~~ followed by the replacement text which is highlighted with grey shading. new text to replace existing text

INTERNATION STANDARDS AND RECOMMENDED PRACTICES

CHAPTER 1. GENERAL

Introductory Note.— This Annex contains Standards and Recommended Practices (specifications) that prescribe the physical characteristics and obstacle limitation surfaces to be provided for at aerodromes, and certain facilities and technical services normally provided at an aerodrome. It also contains specifications dealing with obstacles outside those limitation surfaces. It is not intended that these specifications limit or regulate the operation of an aircraft.

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This document sets forth the minimum aerodrome specifications for aircraft which have the characteristics of those which are currently operating or for similar aircraft that are planned for introduction. Accordingly, any additional safeguards that might be considered appropriate to provide for more demanding aircraft are not taken into account. Such matters are left to appropriate authorities to evaluate and take into account as necessary for each particular aerodrome. Provisions for the accommodation of more demanding aircraft at existing aerodromes can be found in the PANS-AERODROMES (Doc 9981). Guidance on some possible effects of future aircraft on these specifications is given in the Aerodrome Design Manual (Doc 9157), Part 2.

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1.4 Certification of aerodromes

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1.4.1 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.

Note.— Specific procedures on the stages of certifying an aerodrome are given in the PANS-AERODROMES (Doc 9981). Further guidance on aerodrome certification can be found in the Manual on Certification of Aerodromes (Doc 9774).

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1.4.4 As part of the certification process, States shall ensure that an aerodrome manual which will include all pertinent information on the aerodrome site, facilities, services, equipment, operating procedures, organization and management including a safety management system, is submitted by the applicant for approval/acceptance prior to granting the aerodrome certificate.

Note 1.— Contents of an aerodrome manual, including procedures for its submission and approval/acceptance, verification of compliance and granting of aerodrome certificate, are available in the PANS-AERODROMES (Doc 9981).

Note 2.— The intent of a safety management system is to have in place an organized and orderly approach in the management of aerodrome safety by the aerodrome operator. Annex 19 — Safety Management contains the safety management provisions applicable to certified aerodrome. Guidance on an aerodrome harmonized safety management system is given in the Safety Management Manual (SMM) (Doc 9859) and in the Manual on Certification of Aerodromes (Doc 9774). Procedures on the management of change, conduct of safety assessment, reporting and analyses of safety occurrences at aerodromes and continuous monitoring to enforce compliance with applicable specifications so that identified risks are mitigated can be found in the PANS-AERODROMES (Doc 9981).

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Editorial Note.— Incorporate new section 1.7 following section 1.6 Reference Code

1.7 Specific Procedures for Aerodrome Operations

Introductory Note.— This section introduces PANS-AERODROMES (Doc 9981) for the use of aerodromes undertaking an assessment of its compatibility for the type of traffic or operation the aerodrome is intending to accommodate. The material in the PANS-AERODROMES addresses operational issues faced by existing aerodromes and provides the necessary procedures to ensure the continued safety of operations. Where alternative measures, operational procedures and operating restrictions have been developed, these are detailed in the aerodrome manual and reviewed periodically to assess their continued validity. The PANS-AERODROMES do not substitute nor circumvent the provisions contained in this Annex. It is expected that infrastructure on an existing aerodrome or a new aerodrome will fully comply with the requirements in this Annex. See Annex 15, 4.1.2 (c) on States' responsibilities on listing of differences with the related ICAO Procedures in the Aeronautical Information Publication.

1.7.1 When the aerodrome accommodates an aeroplane that exceeds the certificated characteristics of the aerodrome, the compatibility between the operation of the aeroplane and aerodrome infrastructure and operations shall be assessed and appropriate measures be developed and implemented in order to maintain an acceptable level of safety during operations.

Note.— Procedures to assess the compatibility of the operation of a new aeroplane with an existing aerodrome can be found in the PANS-AERODROMES (Doc 9981).

1.7.2 Information concerning alternative measures, operational procedures and operating restrictions implemented at an aerodrome arising from 1.7.1 shall be promulgated.

Note 1.— See Annex 15, Appendix 1, AD 2.20 on the provision of detail description of local traffic regulations.

Note 2.— See PANS-AERODROMES (Doc 9981), Chapter 3, section 3.6 on promulgation of safety information.

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APPENDIX B

**AMENDMENT 12 TO THE INTERNATIONAL STANDARDS AND
RECOMMENDED PRACTICES**

ANNEX 14, VOLUME I — AERODROME DESIGN AND OPERATIONS

RESOLUTION OF ADOPTION

The Council

Acting in accordance with the Convention on International Civil Aviation, and particularly with the provisions of Articles 37, 54 and 90 thereof,

1. *Hereby adopts* on [D] Amendment 12 to the International Standards contained in the document entitled *International Standards and Recommended Practices, Aerodrome Design and Operations* which for convenience is designated Annex 14, Volume I to the Convention;
2. *Prescribes* [*] July 2015 as the date upon which the said amendment shall become effective, except for any part thereof in respect of which a majority of the Contracting States have registered their disapproval with the Council before that date;
3. *Resolves* that the said amendment or such parts thereof as have become effective shall become applicable on 12 November 2015;
4. *Requests the Secretary General:*
 - a) to notify each Contracting State immediately of the above action and immediately after [*] July 2015 of those parts of the amendment which have become effective;
 - b) to request each Contracting State to notify the Organization (in accordance with the obligation imposed by Article 38 of the Convention) of the differences that will exist on 12 November 2015 between its national regulations or practices and the provisions of the Standards in the Annex as hereby amended, such notification to be made before xx October 2015, and thereafter to notify the Organization of any further differences that arise;
 - c) to invite each Contracting State to notify additionally any differences between its own practices and those established by the Recommended Practices, when the notification of such differences is important for the safety of air navigation, following the procedure specified in subparagraph b) above with respect to differences from Standards.

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APPENDIX C

AMENDMENT TO THE PUBLICATION OF ANNEX 14, VOLUME I

PUBLICATIONS

(related to the specifications of this Annex)

Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Manual (Doc 9830)

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Manual on the ICAO Bird Strike Information System (IBIS) (Doc 9332)

Procedures for Air Navigation Services — Aerodromes (PANS-AERODROMES) (Doc 9981)

Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS) (Doc 8168)

Volume I — *Flight Procedures*

Volume II — *Construction of Visual and Instrument Flight Procedures*

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AMENDMENT TO THE FOREWORD OF ANNEX 14, VOLUME I

Add the following at the end of Table A:

<i>Amendment</i>	<i>Source(s)</i>	<i>Subject(s)</i>	Adopted/Approved Effective Applicable
12	Secretariat supported by the PANS-Aerodromes Study Group (PASG) in coordination with the Aerodromes Panel (AP).	1st Edition of <i>Procedures for Air Navigation Services — Aerodromes (PANS-AERODROMES) (Doc 9981)</i>	D * 12 November 2015

— END —