

International Standards
and Recommended Practices



Annex 14
to the Convention on
International Civil Aviation

Aerodromes

Volume II
Heliports

This edition incorporates all amendments adopted by the Council prior to 28 February 2013 and supersedes, on 14 November 2013, all previous editions of Annex 14, Volume II.

For information regarding the applicability of Standards and Recommended Practices, see Chapter 1, 1.2 and Foreword.

Fourth Edition
July 2013

International Civil Aviation Organization

This is a preview. [Click here to purchase the full publication.](#)

**International Standards
and Recommended Practices**



**Annex 14
to the Convention on
International Civil Aviation**

Aerodromes

**Volume II
Heliports**

This edition incorporates all amendments adopted by the Council prior to 28 February 2013 and supersedes, on 14 November 2013, all previous editions of Annex 14, Volume II.

For information regarding the applicability of the Standards and Recommended Practices, see Chapter 1, 1.2 and Foreword.

**Fourth Edition
July 2013**

International Civil Aviation Organization

This is a preview. [Click here to purchase the full publication.](#)

Published in separate English, Arabic, Chinese, French, Russian
and Spanish editions by the
INTERNATIONAL CIVIL AVIATION ORGANIZATION
999 University Street, Montréal, Quebec, Canada H3C 5H7

For ordering information and for a complete listing of sales agents
and booksellers, please go to the ICAO website at www.icao.int

First edition 1990
Second edition 1995
Third edition 2009
Fourth edition 2013

Annex 14, Aerodromes —
Volume II, Heliports
Order Number: AN 14-2
ISBN 978-92-9249-274-8

© ICAO 2013

All rights reserved. No part of this publication may be reproduced, stored in a
retrieval system or transmitted in any form or by any means, without prior
permission in writing from the International Civil Aviation Organization.

AMENDMENTS

Amendments are announced in the supplements to the *Catalogue of ICAO Publications*; the Catalogue and its supplements are available on the ICAO website at www.icao.int. The space below is provided to keep a record of such amendments.

RECORD OF AMENDMENTS AND CORRIGENDA

[illegible][illegible]

TABLE OF CONTENTS

	<i>Page</i>
Abbreviations and symbols; manuals	(viii)
FOREWORD.....	(xi)
CHAPTER 1. General	1-1
1.1 Definitions.....	1-1
1.2 Applicability	1-4
1.3 Common reference systems	1-5
1.3.1 Horizontal reference system	1-5
1.3.2 Vertical reference system.....	1-5
1.3.3 Temporal reference system	1-5
CHAPTER 2. Heliport data	2-1
2.1 Aeronautical data	2-1
2.2 Heliport reference point	2-2
2.3 Heliport elevations	2-2
2.4 Heliport dimensions and related information.....	2-2
2.5 Declared distances.....	2-3
2.6 Coordination between aeronautical information services and heliport authorities.....	2-4
CHAPTER 3. Physical characteristics	3-1
3.1 Surface-level heliports	3-1
— Final approach and take-off areas	3-1
— Helicopter clearways.....	3-2
— Touchdown and lift-off areas.....	3-3
— Safety areas	3-4
— Helicopter ground taxiways and ground taxi-routes	3-4
— Helicopter air taxiways and air taxi-routes	3-6
— Helicopter stands.....	3-7
— Location of a final approach and take-off area in relation to a runway or taxiway.....	3-10
3.2 Elevated heliports.....	3-10
— Final approach and take-off areas and touchdown and lift-off areas	3-11
— Helicopter clearways.....	3-11
— Touchdown and lift-off areas.....	3-12
— Safety areas	3-12
— Helicopter ground taxiways and ground taxi-routes	3-13
— Helicopter air taxiways and air taxi-routes	3-13
— Aprons.....	3-14

	<i>Page</i>
3.3 Helidecks.....	3-15
— Final approach and take-off areas and touchdown and lift-off areas	3-15
3.4 Shipboard heliports	3-16
— Final approach and take-off areas and touchdown and lift-off areas	3-16
CHAPTER 4. Obstacle environment	4-1
4.1 Obstacle limitation surfaces and sectors	4-1
— Approach surface	4-1
— Transitional surface.....	4-7
— Take-off climb surface.....	4-7
— Obstacle-free sector/surface — helidecks.....	4-8
— Limited obstacle surface — helidecks	4-9
4.2 Obstacle limitation requirements	4-9
— Surface-level heliports	4-9
— Elevated heliports.....	4-14
— Helidecks	4-14
— Shipboard heliports	4-15
CHAPTER 5. Visual aids	5-1
5.1 Indicators.....	5-1
5.1.1 Wind direction indicators.....	5-1
5.2 Markings and markers.....	5-2
5.2.1 Winching area marking.....	5-2
5.2.2 Heliport identification marking.....	5-3
5.2.3 Maximum allowable mass marking	5-3
5.2.4 D-value marking	5-6
5.2.5 Final approach and take-off area dimension(s) marking.....	5-8
5.2.6 Final approach and take-off area perimeter marking or markers for surface-level heliports ..	5-8
5.2.7 Final approach and take-off area designation markings for runway-type FATOs	5-10
5.2.8 Aiming point marking.....	5-10
5.2.9 Touchdown and lift-off area perimeter marking	5-10
5.2.10 Touchdown/positioning marking	5-11
5.2.11 Heliport name marking	5-12
5.2.12 Helideck obstacle-free sector (chevron) marking	5-13
5.2.13 Helideck and shipboard heliport surface marking	5-13
5.2.14 Helideck prohibited landing sector markings	5-14
5.2.15 Helicopter ground taxiway markings and markers	5-14
5.2.16 Helicopter air taxiway markings and markers	5-16
5.2.17 Helicopter stand markings	5-17
5.2.18 Flight path alignment guidance marking	5-19
5.3 Lights	5-20
5.3.1 General.....	5-20
5.3.2 Heliport beacon.....	5-21
5.3.3 Approach lighting system	5-23

	<i>Page</i>
5.3.4 Flight path alignment guidance lighting system	5-24
5.3.5 Visual alignment guidance system.....	5-25
5.3.6 Visual approach slope indicator.....	5-28
5.3.7 Final approach and take-off area lighting systems for surface-level heliports.....	5-31
5.3.8 Aiming point lights	5-31
5.3.9 Touchdown and lift-off area lighting system.....	5-32
5.3.10 Winching area floodlighting	5-34
5.3.11 Taxiway lights	5-34
5.3.12 Visual aids for denoting obstacles	5-34
5.3.13 Floodlighting of obstacles.....	5-35
CHAPTER 6. Heliport services	6-1
6.1 Rescue and fire fighting	6-1
— General.....	6-1
— Level of protection to be provided	6-1
— Extinguishing agents.....	6-2
— Rescue equipment	6-3
— Response time	6-3
APPENDIX 1. Aeronautical data quality requirements.....	APP 1-1
APPENDIX 2. International Standards and Recommended Practices for instrument heliports with non-precision and/or precision approaches and instrument departures.....	APP 2-1
1. General	APP 2-1
2. Heliport data.....	APP 2-1
3. Physical characteristics	APP 2-2
4. Obstacle environment	APP 2-2

ABBREVIATIONS AND SYMBOLS*(used in Annex 14, Volume II)**Abbreviations*

APAPI	Abbreviated precision approach path indicator
ASPSL	Arrays of segmented point source lighting
cd	Candela
cm	Centimetre
FATO	Final approach and take-off area
ft	Foot
GNSS	Global navigation satellite system
HAPI	Helicopter approach path indicator
HFM	Helicopter flight manual
Hz	Hertz
kg	Kilogram
km/h	Kilometre per hour
kt	Knot
L	Litre
lb	Pounds
LDAH	Landing distance available
L/min	Litre per minute
LOA	Limited obstacle area
LOS	Limited obstacle sector
LP	Luminescent panel
m	Metre
MAPt	Missed approach point
MTOM	Maximum take-off mass
OFS	Obstacle-free sector
PAPI	Precision approach path indicator
PinS	Point-in-space
R/T	Radiotelephony or radio communications
RTODAH	Rejected take-off distance available
s	Second
t	Tonne (1 000 kg)
TLOF	Touchdown and lift-off area
TODAH	Take-off distance available
UCW	Undercarriage width
VSS	Visual segment surface

Symbols

°	Degree
=	Equals
%	Percentage
±	Plus or minus