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UNITING AVIATION

ICAO Heliport Update:

Adel Ramlawi

*Regional Officer, Aerodromes,
ICAO MID Regional Office*

**ICAO Heliport Seminar (IHS)
Dubai, UAE, 8 December 2015**





Overview

- ICAO
- Heliport SARP's
- ADOP & HDWG
- Heliports in the MID Region





ICAO

- UN Organization
- Established 1944
- 192 States
- HQ in Montreal
- 7 Regional Offices:
 - Bangkok, Cairo, Dakar, Lima, Mexico, Nairobi, & Paris
- MID Region: 15 States

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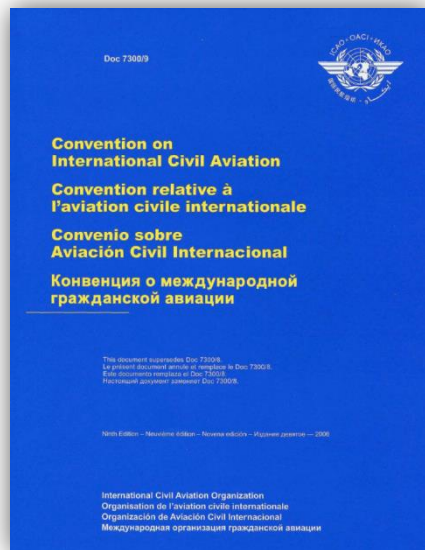




ICAO

- Assembly (ordinarily every 3 years)
- Council – 36 States
- Air Navigation Commission – 19 members
- Air Navigation Bureau
- Standards, Recommended Practices

The Chicago Convention, since 1944



- Government signatories
- Agreement on certain principles and arrangements
- Safe and orderly development of international civil aviation
- International air transport services based on equal opportunity and operated soundly and economically



Part I, Chapter VI

- Article 37:
 - Adoption of international standards and procedures
- Article 38:
 - Departures from international standards and procedures



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Annexes to the Convention

- 19 Annexes currently





Annexes to the Convention on International Civil Aviation

- **Annex 1** **Personnel Licensing**
- **Annex 2** **Rules of the Air**
- **Annex 3** **Meteorological Service for International Air Navigation**
- **Annex 4** **Aeronautical Charts**
- **Annex 5** **Units of Measurement to be Used in Air and Ground Operations**
- **Annex 6** **Operation of Aircraft**
- **Annex 7** **Aircraft Nationality and Registration Marks**
- **Annex 8** **Airworthiness of Aircraft**
- **Annex 9** **Facilitation**



- **Annex 11** **Aeronautical Telecommunication**
- **Annex 11** **Air Traffic Services**
- **Annex 12** **Search and Rescue**
- **Annex 13** **Aircraft Accident and Incident Investigation**
- **Annex 14** **Aerodromes (Vol I – Aerodrome Design and Operation; Vol. II – Heliports)**
- **Annex 15** **Aeronautical Information Services**
- **Annex 16** **Environmental Protection**
- **Annex 17** **Security**
- **Annex 18** **The Safe Transport of Dangerous Goods by Air**
- **Annex 19** **Safety Management**



- **5 PANS** (Procedures for Air Navigation Services) documents – Detailed procedures, supporting the implementation of the SARP's; Aimed at States and Operators.
- **Guidance Materials** – Composed of hundreds of Manuals, Circulars, handbooks. Support the implementation of SARP's and PANS. Not mandatory.



PROCEDURES FOR AIR NAVIGATION SERVICES:

PANS-ATM (Doc 4444, Air Traffic Management)

PANS-OPS (Doc 8168, Aircraft Operations)

PANS-ABC (Doc 8400, ICAO Abbreviations and Codes)

PANS-TRG (Doc 9868, Training)

PANS-Aerodromes (Doc 9981)

Guidance Materials (hundreds of documents, associated to the 19 annexes):

Manuals... (Including the Heliport Manual – Doc 9261)

Circulars...



The newest PANS doc is the PANS-Aerodromes (1st edition officially published July 2015)

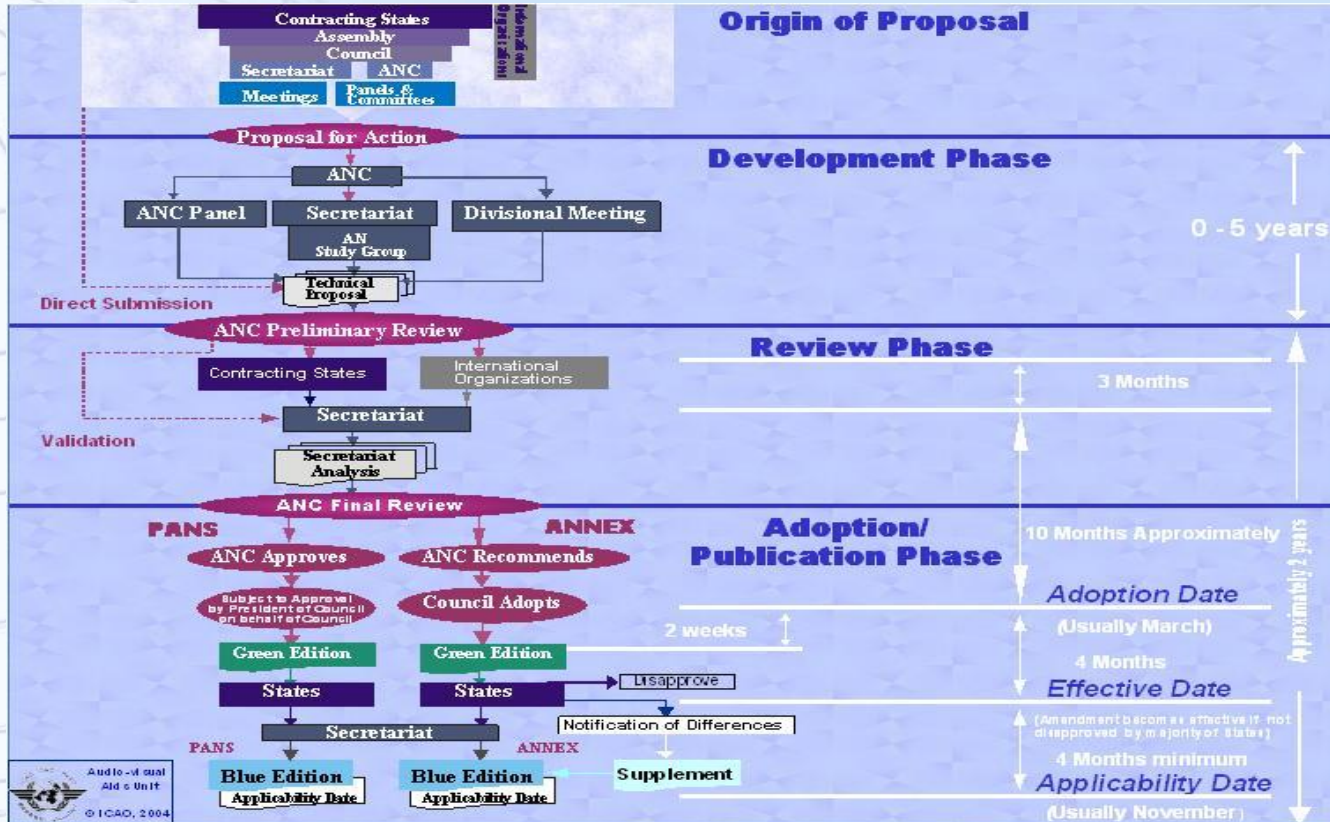
Applicable Nov. 2016

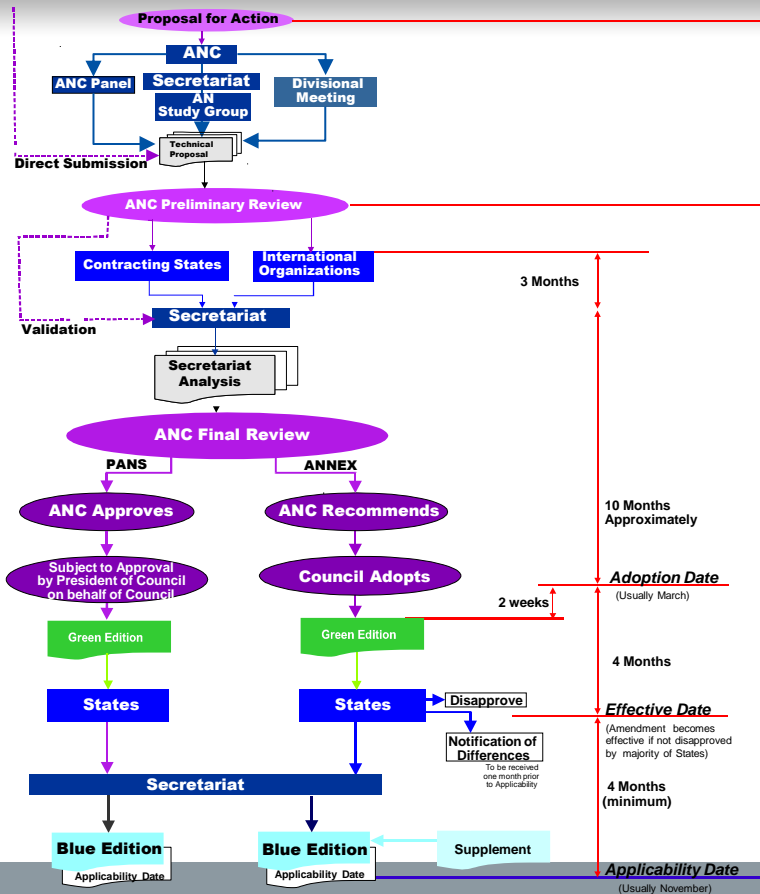
Next Edition of PANS Aerodromes (planned to be published 2017) will include

1. Wildlife hazard
2. FOD
3. Global reporting Format
4. Runway safety
5. Apron Safety
6. Inspection of Movement Area
7. Training for Aerodrome Personnel
8. Work in Progress (WIP)

planned to contain provisions pertaining to Heliports –

MAKING OF A SARP





Development Phase

0 - 5 years

Review Phase

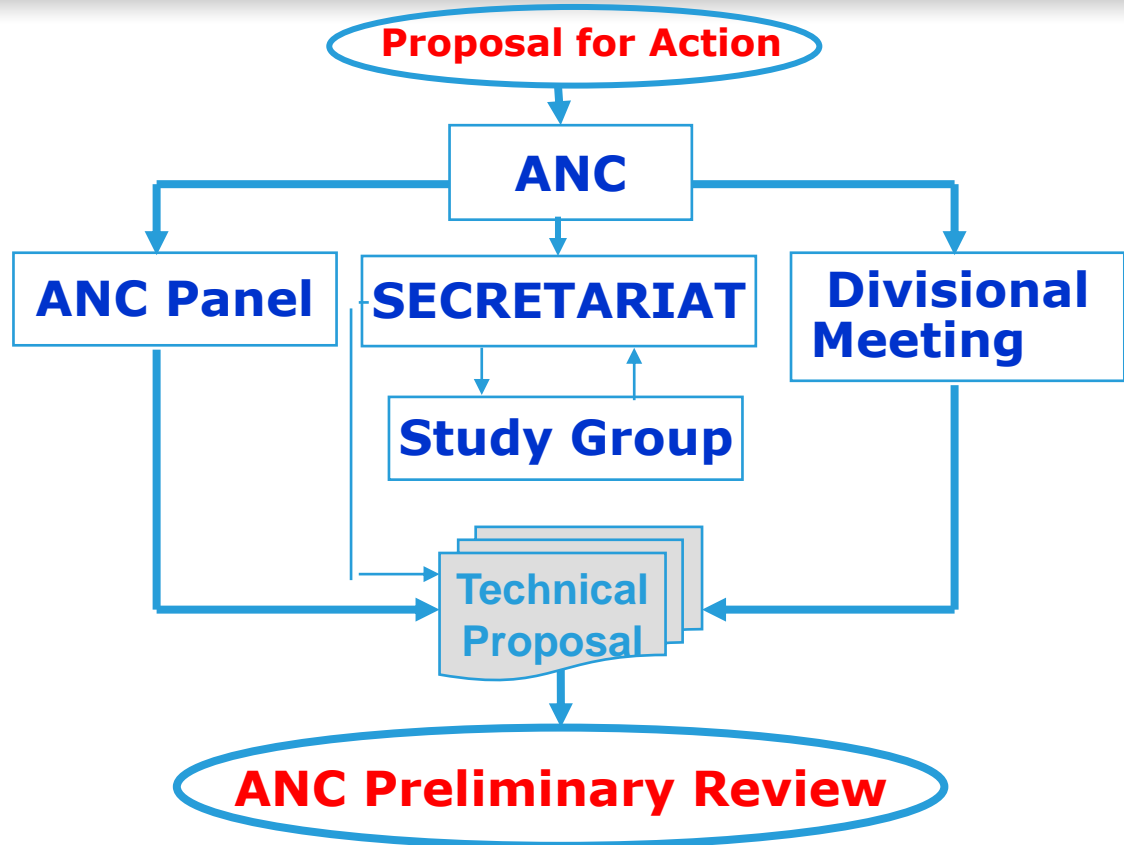
Adoption/Publication Phase

2 years (approx.)



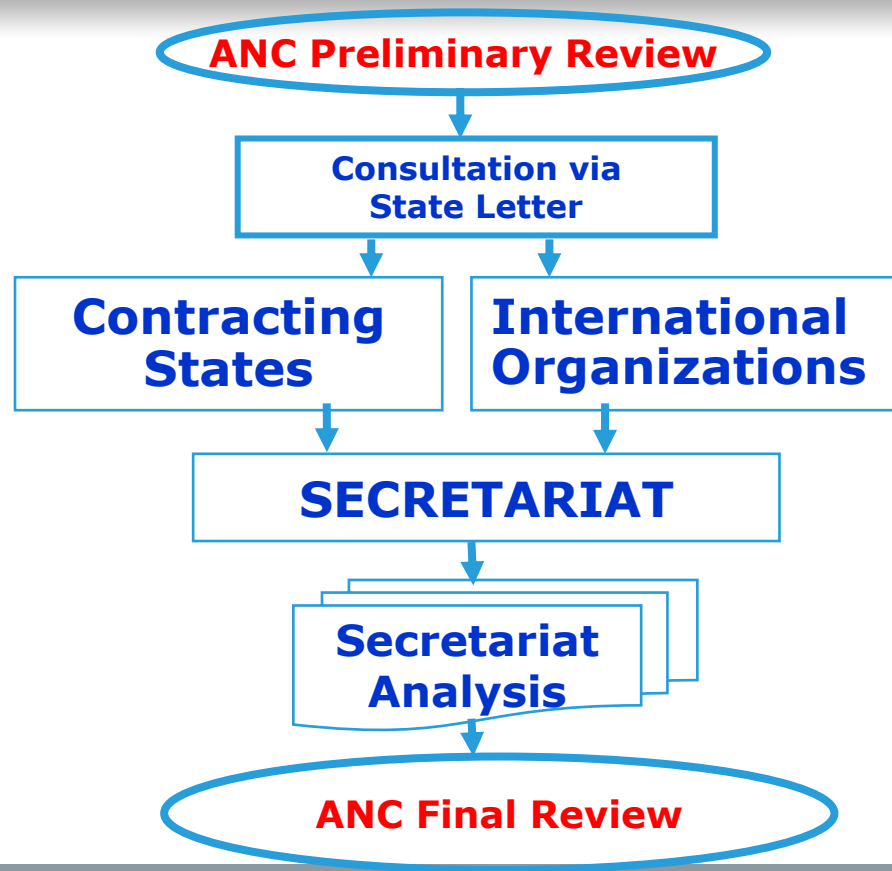
Development phase

Note: Proposals for action may originate from Assembly Sessions, Council, ANC, Secretariat, Contracting States, International Organizations, Expert Group Meetings, Panels and Committees



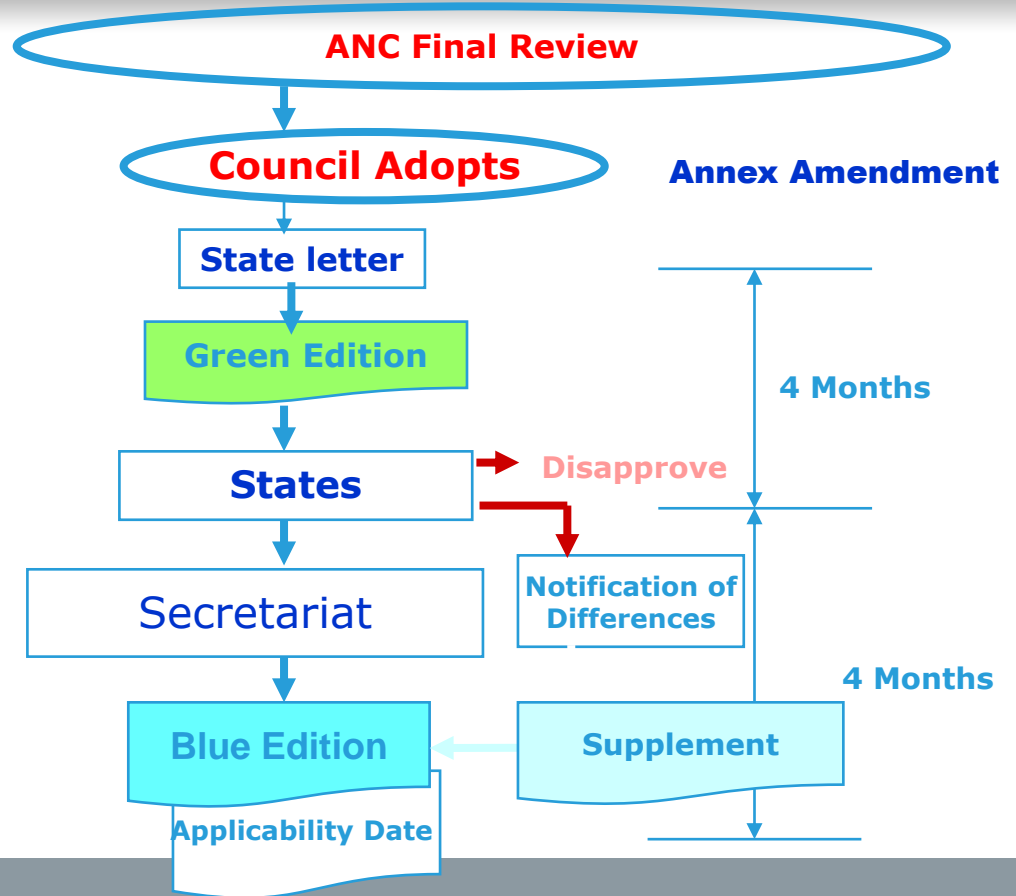


Review phase





Adoption/ Publication phase



ICAO Section to handle Heliports is:



- **AOI: Airport Operations & Interoperability**
 - **Aerodromes**
 - **Meteorology**
 - **Navigation Systems**
 - **Spectrum**
 - **Charting**

Aerodrome Strategy



- Challenges
 - Safety
 - Capacity
 - New larger aircraft and technology impact
 - Other challenges, including economic, security and environmental issues

Aerodrome Strategy



- **Vision**

- Optimize aerodrome/surface facilities and operations to enable air transportation services to be delivered in a safe, efficient, cost-effective and environmentally responsible manner.

- **Mission**

- To help States achieve the above vision, ICAO provides policy, develops and assists in implementing aerodrome SARPs, procedures and guidance material and manages regional planning on aerodrome facilities and operations.



ICAO Heliport related provisions

Provisions pertaining to **Heliport planning, design, and operations** are developed by the ICAO **Aerodrome Design and Operations Panel (ADOP)**, **through its Heliport Design Working Group (HDWG)**, with cooperation with other ADOP Working Groups (for ex. the RFFWG) and others.

ADOP Working Groups include: ADWG, A-CDM, RFFWG, **HDWG**, VAWG, and GHTF (Ground Handling task force).

Provisions pertaining to **Helicopter Operations** are developed by the ICAO Flight Operations Panel (FLTOSP) through its Helicopter sub-group (HSG) and contained in Annex 6 Part III (International Operations - Helicopters).

(Until the early 90's, a standalone panel existed - the Helicopter Operations Panel).



HDWG

The Heliport Design Working Group (HDWG) :

A specialized group of the Aerodrome Design and Operations Panel (ADOP), and the ICAO leading group of experts on Heliports matters. Comprised of 30 experts and technical advisors representing Civil Aviation Authorities, International organisations and the industry. The HDWG develops SARP's and guidance materials and update existing provisions, based on the ICAO Air Navigation Commission directives.



ICAO provisions on Heliports

Annex 14 Volume II – Heliports (fourth edition, 2013)

Annex 14 (Aerodromes) to the Chicago convention, containing Standards and Recommended Practices for aerodromes, was first published by ICAO in 1951. However, these SARP's did not specifically address heliports.

Introduced in 1990 (1st edition).

Therefore, in 1990 a new volume of Annex 14 was introduced as a means of including provisions for heliports, partitioning Annex 14 from that year on to two parts – Volume I on Aerodrome Design and Operations (refers to Aerodromes meant for fixed wings aeroplanes' ops), and Vol. II – Heliports.



Annex 14 Vol. II

Annex 14 Vol. II – Heliports, includes specifications on the planning, design and operation of heliports, and covers the following main topics:

- **Physical characteristics;**
- **Heliport data;**
- **Obstacle environment;**
- **Visual aids; and**
- **Heliport services (including RFF).**



Key Definitions

Annex 14 Volume II contains the following key definitions:

Heliport - “An aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters”.

Helideck - “A heliport located on a fixed or floating offshore facility such as an exploration and/or production unit used for the exploitation of oil or gas”.





Elevated heliport - “A heliport located on a raised structure on land”.

Shipboard heliport - “A heliport located on a ship that may be purpose or non-purpose-built...”.

“Helipad”, “helicopter landing site”, “helicopter landing zone” etc’ are all Non-ICAO terms, and are not defined in the ICAO Heliports related documents.





ICAO provisions on Heliports – Cont'd

Doc 9261 - Heliport Manual (third edition, 1995)

The Heliport Manual supports the high-level Standards and Recommended Practices contained in Annex 14 Volume II and assists in their implementation.

The Manual not only enlarges upon some of the specifications in Annex 14 Volume II, but also provides guidance on aspects not dealt with in the Annex, e.g. site selection, winching areas, underslung load operating areas, etc.

The following main topics are covered by the Heliport Manual:

Site selection and structural design;

Physical characteristics;

Obstacle restriction and removal;

Winching areas and underslung load operating areas on ships;

Visual aids;

Rescue and Fire fighting; and

Heliport data.



Recent developments by ICAO

- **Continues update of Annex 14 Volume II** - Last amendments from 2013 and 2014 dealt with, among others: Helidecks, shipboard heliports, integrity of aeronautical data, physical characteristics for surface-level heliports, markings, and obstacles.
- **The next amendment of Annex 14 Volume II**, planned to become applicable in November 2016 and detailed in State Letter 97/2014, will address the topics of removal of redundant definitions from the Annex, Heliport emergency planning, physical characteristics, Shipboard heliports, and visual aids.



Recent developments by ICAO (cont.)

- **Complete revision and updating of the Heliport Manual (doc 9261) Off Shore part** – Following a massive effort by the HDWG Off-shore sub-group. The updated material will address Helidecks and Shipboard Heliports and has entered the internal ICAO phase of editing and coordination (planned to be officially published in 2016).
- **Expansion of the HDWG**
 - – New members from the UAE have joined the group, mainly (but not only) to support the development of provisions pertaining to Heliport certification.



Main components of the HDWG Work Plan

- **Provisions on the certification of heliports, including implementation of SMS.**

Amendments to Annex 14 Vol II, PANS-Aerodromes, and the Heliport Manual, doc 9261 (optionally – doc 9774, Manual on the Certification of Aerodromes).

Target dates: development of provisions by Q4/2017; Applicability Q4/2020 (following the mandatory consultation process with Member states and the Industry).



- **Review of Annex 14 Vol. II provisions concerning lighting at heliports, (Final approach and Take-Off) FATO characteristics, markings of FATO's and Touchdown and Lift-off (TLOFs), and RFF.**
 - - Amendments to Annex 14 Vol II, and the Heliport Manual.
 - - Target dates: development of provisions by Q4/2017; Applicability Q4/2020 (following the consultation process).
- **Reviewing the criteria used for categorization of heliports for RFF including a study of the D-values and corresponding fuselage length/width values and develop provisions accordingly.**



- **Complete revision and updating of the Heliport Manual (doc 9261)** – Including its partitioning into two parts: On-shore heliports and Off-shore heliports.
 - Off-shore planned for publication in 2016; On shore part by 2018.



HELIPORTS IN THE MID REGION

QUESTIONS		STATES			
		EGYPT	QATAR	Saudi Arabia	UAE
1	Has the State promulgated Regulations on Heliports Design and Operation in line with ICAO Annex 14 Volume II? If yes, provide details:	Yes, ECAR138 & EAC139-27 & Low 28 (Year 2010 Amendment).	No	Yes. GACA 14-02	Yes: UAE Civil Aviation Regulation (CAR) Part IX, Chapter 2 contains the requirements for the issue of a Heliport Certificate or a Heliport Landing Area Acceptance I.
2	Has the State notified ICAO of any difference to Annex 14 Vol. II? If yes, provide details:	No	No	Yes. (Ref 5.2.2.6) A heliport identification marking for a heliport at a hospital shall consist of a letter H, WHITE in colour, on a RED CRESCENT	No differences between CAAP 70 and ICAO Annex 14, Volume II.
3	Does the State maintain a database of all heliports and other landing areas? If yes, provide details:	Yes, (include no. , certification statues, operator name, location	Yes. Gulf Helicopters- (See Attached)	No	Yes: Database of all heliports and other landing areas is maintained on GCAA's e-Services.



QUESTIONS		STATES			
		EGYPT	QATAR	Saudi Arabia	UAE
4	Does the State have a programme to certify/accept/approve heliports? If Yes				
a)	Is heliport certification/acceptance/ approval supported by Regulation?	Yes, ECAR 138 Subpart (B,C,D)		Yes	CAR Part IX Chapter 2 contains the requirements for the issue of a Heliport Certificate or a Heliport Landing Area Acceptance.
b)	Has the State promulgated clear criterion for heliport certification?	Yes, ECAR 138 Subpart (B,C,D)		Yes GACA 14-14	CAAP 70 Heliports – Air Service and Private Use
c)	How many heliports have been identified for certification/acceptance/approval?	Approximately (100)		25 (in process. No Heliport is certified)	On-going process
d)	How many heliports have received their certification/acceptance/approval?	Approximately (40)		0	12
e)	What is the percentage of certified heliports?	40%		0	Approximately 25%.
f)	What are the criteria adopted for RFFS?	ECAR 138, EAC 139-27		GACA 14-02	Currently following Annex 14 Vol II
g)	How long is the validity of certification/acceptance/approval?	One year		2 years (and on case by case basis)	Certificate and acceptances are provided with no expiry



QUESTIONS	STATES			
	EGYPT	QATAR	S. Arabia	UAE
Does the State have Helidecks 5 operating within its territories? If yes:				
a) How many helidecks (fixed and mobile) and vessels are operating off-shore?	100	34	Information not available	Approximately 500
b) How many other vessels are operating (i.e. tankers, cargo 3 vessels, passenger vessels)?			Information not available	Estimate is around 20 including all uses
c) In addition to ICAO Annex 14 Volume II, what other publications are used	Only ICAO annex14v2 and other related doc.		No	UAE CAAP 71 Helidecks (Offshore) UK CAP 437 Offshore Helicopter Landing Areas NFPA 418 Standards
d) What level of safety oversight is provided by the State?	criteria for surveillance and oversight system to ensure safe operation to helicopter.		No Oversight as no Heliport is certified and trained resources are missing	Certification and oversight of the oil and gas companies who operate the helidecks.
e) What level of safety oversight is provided by the oil and gas companies?	Should comply with requirement to have certification.	Gulf Helicopters provides the safety oversight.	No	Complete oversight of their helidecks.



QUESTIONS		STATES			
		EGYPT	QATAR	S. Arabia	UAE
6	Provide an estimation of the number of heliports in your State and type of use (Oil industry, medical services, etc..)	Oil industry (120) , Medical service (2)	3 Civil, 3 Medical	400	500+ Estimate 80% for Oil and Gas Estimate 10% Air Service Estimate 10% Medical Fac
7	Does the State have a heliport oversight system in-place with sufficient resources and procedures	Yes	No	No	Yes: Resources provide through Air Navigation & Aerodrome Department and Flight Operations Department
8	How do helicopter operators demonstrate that the use of heliports are adequate for the type(s) of helicopter and operation(s) concerned?	1) All design criteria is related to the helicopter specification 2) Any limitation was written in the ministerial decree for heliport operation.		Information not available	The helicopter operators are required to hold an AOC from the GCAA and must demonstrate their review of the heliports under their SMS.



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THANK YOU