



NPA No. 17/2015

**CAR PART VIII SUBPART 6
INSTRUMENT FLIGHT PROCEDURE DESIGN REQUIREMENTS**

Release Date: 20 October 2015

The GCAA has recently conducted a review of CAR PART VIII Subpart 6 as a result of a need to enhance the regulation related the following subjects:

- Training of Personnel (CAR 6.8)
- Flight Validation (CAR 6.18)
- Safety inspections and Audits conducted by the GCAA (CAR 6.22)
- Flight Procedure Design Software Validation (CAR 6.24)
- Failure to comply with Subpart 6 (CAR 6.25)

The proposed initial entry into force date of the amendment is 01 January 2016.

This notice is published to announce to the public this amendment, and to entitle all concerned parties to:

1. Review the attached proposed CAR PART VIII Subpart 6; and
2. Submit their comments online through the GCAA website within 60 days from the date of this NPA.

Comments must be submitted through the GCAA Website – E-Publication – Notice of Proposed Amendment, using the Action of “Submit NPA Feedback Request.”

Comments and Responses may be viewed in the Comments Response Document CRD pertaining to this NPA on the GCAA website.

CAR PART VIII

SUBPART 6

INSTRUMENT FLIGHT PROCEDURE DESIGN REQUIREMENTS

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FOREWORD

1. The General Civil Aviation Authority (hereinafter “Authority”) has implemented CAR Part VIII, Subpart 6 based on ICAO Procedure design documentation but with additional paragraphs where considered appropriate.
2. The General Civil Aviation Authority issued Instrument Flight Procedure Design Certificate shall hereinafter be referred to as the “certificate” for brevity.
3. Definitions and abbreviations of terms used in SUBPART 6 shall always be interpreted as per the applicable international standards.

RECORD OF AMENDMENTS

Rev. No	Date of issue
Issue: Initial	November 2011
Issue: 01 Rev: 00	March 2014
Issue: 01 Rev: 01	September 2014
Issue: 01 Rev: 02	June 2015

AMENDMENTS HISTORY

Amendment	Source(s)	Subject(s)	Issue Date
Issue: Initial	ICAO DOC 8168 VOL II ICAO DOC 9905 ICAO DOC 9906	New regulations	November 2011
Issue: 01 Rev: 00		Inclusion of E-Services application process. Inclusion of additional post holders	March 2014
Issue: 01 Rev: 01		Safety inspections and Audits (CAR 6.22)	September 2014
Issue: 01 Rev: 02		Flight Validation (CAR 6.18) Safety inspections and Audits (CAR 6.22) Flight Procedure Design Software Validation (CAR 6.24) Non-Compliance (CAR 6.25)	June 2015

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SECTION A — GENERAL PROVISIONS

CAR 6.1 Scope

- a) CAR Part VIII, Subpart 6 contains the Rules governing:
 - 1. The certification of an Organisation and/or person who are, or want to become an Instrument Procedure Design Service Provider (IPDSP);
 - 2. Instrument Flight Procedure (IFP) acceptance procedure;
 - 3. Validation of IFP;
 - 4. Maintenance of IFP, and
 - 5. Training Requirements for Approved Procedure Designers (APD).
- b) The aim of this Subpart is to ensure that Instrument Flight Procedures (IFPs):
 - 1. Are designed in accordance with the required standard as stipulated in paragraph 18 of this Subpart;
 - 2. Are safe and flyable;
 - 3. Meet Air Traffic Management requirements; and
 - 4. Are environmentally acceptable.

CAR 6.2 Definitions and Acronyms

- a) Definitions existing in ICAO Documents shall form part of this Rule, supplemented by the definitions contained in CAR Part VIII, Subpart 1. Where there are differences between the definitions in the two sources, Subpart 1 has precedence.

CAR 6.3 Requirements for Certification

- a) For the purpose of this CAR Subpart, an Instrument Procedure Design Service Provider (IPDSP) may be either:
 - 1. An organisation employing one or more suitably qualified individuals; or
 - 2. A suitably qualified individual.
- b) No person shall provide an Instrument Flight Procedure Design Service for the UAE FIR except under the authority of, and in accordance with the provisions of, a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace.
- c) For the purpose of this CAR Subpart, an Approved Procedure Designer (APD) is an IPDSP who has met the Authority competency requirements and holds a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace within the UAE FIR.
- d) For the purpose of this CAR Subpart, a Proponent is defined as an aerodrome certificate holder, or a representative there-of, or an ANSP, who proposes a new IFP, or a change to or withdrawal of, an IFP.
- e) For the purpose of this CAR Subpart, an Instrument Flight Procedure (IFP) is:
 - 1. A Standard Instrument Arrival (STAR), or
 - 2. A Standard Instrument Departure (SID), or
 - 3. An Instrument Approach Procedure (IAP), or
 - 4. An MSA or TAA, or
 - 5. Holding procedure, or

6. A visual flight procedure, or
7. An ATS route.

CAR 6.4 Application for Certificate

- a) Each applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall complete an application for an IFPD Certificate via the E Services IFPD Certificate section of the GCAA website.
- b) All elements of the form shall be completed.
- c) If an applicant has previously been granted a procedure design certificate, and the certificate was cancelled, the applicant must include with the application any information to show that the applicant could now properly design IFP's of the type or types concerned.
- d) The application shall be submitted via the website along with the exposition required under CAR 6.23 and payment of the appropriate fee specified by the GCAA Board under Article 10.7 of the GCAA Law.

CAR 6.5 Issue and Validity of Certificate

- a) An applicant is entitled to a certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace if:
 1. The applicant and persons holding positions listed in CAR 6.7 a) 2-4 are acceptable to the Authority; and
 2. The organisations exposition as required by car 6.23 is acceptable to the Authority; and
 3. The Authority is satisfied that the granting of the certificate is not contrary to the interests of aviation safety.
- b) The Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace remains in force until it expires, is suspended or revoked.
- c) The holder of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace that expires or is revoked shall surrender the certificate to the Authority.
- d) The holder of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace that is suspended shall immediately return the certificate to the Authority for appropriate endorsement.
- e) The validity of the Certificate is based upon the continued operation in accordance with Civil Aviation Regulations, Civil Aviation Advisory Publications and Information Bulletins as published by the Authority
- f) The Certificate shall remain valid subject to periodic surveillance audits conducted at the discretion of the Authority confirming ongoing compliance with the Civil Aviation Regulations.
- g) The Authority shall undertake a complete Certification inspection at least once in every three year period (36 months) following the issue of an IPDSP Certificate, as detailed in CAR 6.22.

CAR 6.6 Privileges of Certificate

- a) The Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall specify the Instrument Procedure Design Services that the certificate holder is authorised to provide.

SECTION B — CERTIFICATION REQUIREMENTS

CAR 6.7 Personnel Requirements

- a) The applicant for Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall engage, employ or contract:
 1. A person identified as the Accountable Manager, who has the authority within the applicant's organisation to ensure that the service listed in its exposition can be financed and is provided in accordance with the requirements of this Subpart; and
 2. A "Chief Designer" who is responsible for ensuring that the organisation complies with the design criteria requirements of this Subpart, who authorises the IFP for promulgation and use; and
 3. A Head of Training responsible for ensuring that the organisation complies with the training requirements of this Subpart; and
 4. A Manager safety management post holder responsible for the provision of a safety management system according to the requirements of CAR Part X,; and
 5. A quality management post holder responsible for the provision of a quality management system; and
 6. Sufficient personnel to manage, supervise, and support the APD.
- b) Qualifications and experience details for the persons nominated by the applicant for the positions listed in CAR6.7 a) above be forwarded to the Authority for acceptance prior to the person being named in that position by the applicant. The GCAA retains the right to reject any post holder appointed and who has been found unsuitable.
- c) The persons listed in CAR6.7 a) 2-4 above shall ultimately be responsible to the Accountable Manager.
- d) The applicant shall establish procedures to:
 1. Ensure the competence of those personnel who:
 - i. supervise personnel providing the IPD services; and
 - ii. Provide the Instrument Procedure Design services listed in the applicant's exposition.
 2. Provide training and assessment for those Instrument Procedure Design services in accordance with the requirements of CAR 6.14 of this Subpart; and
 3. Provide immediate design support for those Instrument Procedure Design services; and
 4. Provide personnel listed in CAR6.7 a) 2-4 with written evidence of the scope of their authorisation; and
 5. Ensure that those personnel hold, where appropriate, a current certificates issued under this Subpart.

CAR 6.8 Training

- a) An applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall establish a Training and Competency management system and associated procedures and programs for the training and competency assessment of those IFP Personnel who provide the IFP Design services that includes:
1. an overall Training and Competency management policy authorized by the Accountable Manager; and
 2. a Training and Competency management strategy and objectives authorized by the Accountable Manager.
- b) The Organisation shall establish, document, implement, maintain and continually improve the Training and Competency management system to achieve the Training and Competency management strategy and deliver the Training and Competency management objectives across the following staff life cycle activities:
1. Induction;
 2. On the Job;
 3. Recurrent;
 4. Remedial;
 5. Safety; and
 6. Development.
- c) The organization shall periodically review the Training and Competency management system to ensure it remains adequate, effective and consistent with Training and Competency management strategy and objectives with due consideration of the following:
1. The reviews shall be recorded and conducted at interval acceptable to the GCAA to assess the need for changes to the Training and Competency management system policy, Training and Competency management system strategy and Training and Competency management system objectives;
 2. Those records and other information relevant to specific employees, contracted service providers or other stakeholders shall be retained for a period acceptable to the GCAA.
- d) The organisation shall establish, implement and maintain processes and/or procedures for identifying opportunities and assessing, prioritizing and implementing actions to achieve continual improvement in:
3. the optimal combination of costs, Training and Competency related risks and the performance of staff;
 4. the performance of the Training and Competency management system.
- e) The organisation shall actively seek and acquire knowledge about new Training and Competency technologies and practices, including tools and techniques, and they shall be evaluated prior to adoption into the Training and Competency Management system.

CAR 6.9 Facility Requirements

- a) Each applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall establish offices and facilities that are appropriate for the Instrument Procedure Design service/s listed in their exposition.

CAR 6.10 Documentation

- a) Each applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall:
 - 1. Document the format and standards for the IFP designed under the authority of their certificate; and
 - 1. Hold copies of relevant reference materials, standards, practices and procedures, and any other documentation that is necessary for the IFP service listed in their exposition.
- b) These documents shall include, but not be limited to:
 - 1. Annex 2,
 - 2. Annex 4,
 - 3. Annex 5,
 - 4. Annex 6,
 - 5. Annex 10,
 - 6. Annex 14,
 - 7. Annex 15,
 - 8. ICAO DOC 4444,
 - 9. ICAO DOC 7030,
 - 10. ICAO Doc 8071,
 - 11. ICAO Doc 8126,
 - 12. ICAO Doc 8168 VOL I, ICAO Doc 8168 VOL II,
 - 13. ICAO Doc 8697,
 - 14. ICAO Doc 9274,
 - 15. ICAO Doc 9365
 - 16. ICAO Doc 9368,
 - 17. ICAO Doc 9371,
 - 18. ICAO DOC 9501,
 - 19. ICAO DOC 9613,
 - 20. ICAO DOC 9643,
 - 21. ICAO DOC 9674,
 - 22. ICAO DOC 9708
 - 23. ICAO DOC 9849,
 - 24. ICAO DOC 9905,
 - 25. ICAO DOC 9906 volumes I, II, III, IV, V and VI.
 - 26. ICAO DOC 9931
 - 27. UAE CAR PART IX
 - 28. UAE CAR PART X
- c) Each applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall establish a procedure to control all the documentation required by CAR 6.10 b), to ensure that:
 - 1. The documentation is reviewed and authorised by appropriate personnel before issue; and

2. Current issues of relevant documentation are available to staff at all locations where they need access to such documentation for the flight procedure design service listed in their exposition; and
3. All obsolete documentation is promptly removed from all points of issue or use; and
4. Changes to documentation are reviewed and approved by appropriate personnel; and
5. The current version of each item of documentation can be identified to preclude the use of out of date editions.

CAR 6.11 Criteria for the Approval of IPDSP

- a) Each applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall provide evidence of the following:
 1. Specialist procedure design training in accordance with a competency based approach. (One such an approach is described in ICAO Document 9906, Volume II, Flight Procedure designer Training);
 2. Proof of successful completion of a PANS-OPS training course based on ICAO PANS OPS Document 8168, given by an organisation or qualified individual acceptable to the ANA department of the GCAA.
 3. Where no formal training course has been completed, the GCAA may accept evidence of a comprehensive “in-house” training and development program under the supervision of an APD.
 4. Evidence of recent (within last 12 months) IFP design work which should include evidence of specific designs which have been approved for use;
 5. Appropriate references if experienced outside the UAE;
 6. Aviation experience, including a working knowledge of ATM, ATC, ATFM and ASM.
- b) In addition, each applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall include a statement indicating knowledge of:
 1. Navigation, navigation systems and geography to the level of an instrument rated pilot;
 2. Aircraft operations and performance;
 3. AIS and understanding of Annex 15 requirements;
 4. Aerodrome safeguarding and Annex 14 obstacle surface requirements;
 5. Geodetics.
- c) Each application for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall include a copy of:
 1. An acceptable Quality management system (QMS) in accordance with CAR Part VIII, Subpart 1, QMS requirements and in compliance with ICAO PANS-OPS DOC 8168 Volume II, Chapter 4, Quality Assurance; and ICAO Document 9906, Volume 1, Quality Assurance Manual for Flight Procedure Design;
 2. An acceptable Safety Management System (SMS) in accordance with CAR Part X and CAR Part VIII, Subpart 1.

CAR 6.12 IFP Design Process

- a) Each applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall provide evidence of the following process being followed for all FPD services:
 1. Conceptual design, including planned implementation dates, and resources needed to achieve the task – where appropriate and required by the Authority;

2. The FPD, including the procedure layout, the relevant calculation outputs, coordinates and a textual description of the intended procedure, draft IFP charts and ARINC 424 path terminators where applicable;
 3. Validation and verification reports for the IFP;
 4. Approval of the procedure by the authority as specified in this Subpart;
 5. documentation throughout the various stages from the input through the publication process; and
 6. Compliance with CAAP 41.
- b) Each applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall document the effective date and AIRAC of the aeronautical information used in the design.
- c) Each applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall document the obstacle and terrain data used in the design

CAR 6.13 Design Standards

- a) Responsibility for the design of IFPs has been vested in the relevant Emirate's Civil Aviation Authority.
- b) IFPs shall be designed in accordance with the guidance contained within ICAO PANS-OPS DOC 8168 Volume II and or ICAO DOC 9905 as appropriate, as supplemented by Appendix 1 of this Subpart, and any variations from these documents approved by the ANA department of the GCAA.
- c) IFPs shall be designed in accordance with the processes detailed in CAR 6.12 of this Subpart, with respect to consultation with stakeholders in the affected airspace.
- d) IFPs shall also be designed in compliance with the requirements of the UAE ATM Strategic Plan and the UAE PBN Plan.

CAR 6.14 IFP Acceptance

- a) The IFP acceptance are based upon the following:
 1. GCAA has certified the IPDSP through evaluation of their training, APD experience, quality procedures and working practices as specified in this Subpart;
 2. GCAA evaluation and acceptance of completed IFP designs and documentation as prescribed in this Subpart.
- b) The GCAA will only accept IFP designed by a Certified IPDSPs.
- c) The ANA department will maintain a list of certificated IPDSPs.
- d) A certified IPDSP may only design procedures for navigation aids or navigation systems shown in the scope section of their certificate.
- e) Proposed new routes or amendments to existing routes shall be submitted according to CAAP 41, supported by an evaluation from an IPDSP.

CAR 6.15 Environmental Considerations

- a) Consideration shall be given in the design of IFPs to the effect of the design on the environment, and also to the environmental policy of the UAE Government and GCAA as published.
- b) All terminal IFP shall be designed to consider continuous climb and descent operations.

CAR 6.16 Validation of IFP

- a) The validation of conventional and RNAV IFPs is required under:
 - 1. ICAO PANS-OPS Document 8168, Volume II,
 - 2. ICAO Document 8071, Volumes I and II,
 - 3. ICAO Document 9906, Volume I
- b) The IFP design process starts with the collection of relevant data, proceeds through the design phase then ground and/or flight validation prior to publication.
- c) Therefore validation shall occur at the collection of data phase, the ground and/or flight validation stage and, in the case of RNAV IFP, the validation of the navigation database ARINC 424 coding instructions.
- d) An APD shall establish procedures to ensure that data required for the design of an IFP meets the requirements of ICAO Document 9906, Volume I, Paragraph 7.2
- e) An APD shall prepare an IFP validation package to enable an Independent APD to carry out a Ground validation of the IFP.
- f) The package shall include:
 - 1. A plan view of the final approach obstacle evaluation,
 - 2. Complete documentation identifying obstacles, obstructions and terrain relevant to the IFP, including identifying the controlling obstacle/terrain,
 - 3. Narrative description of the IAP, segment by segment.
 - 4. Plan and profile views of the IAP.
 - 5. Data relating to each fix and holding pattern involved in the IAP,
 - 6. Confirmation that Navigation aid coverage, if applicable, is satisfactory,
 - 7. Draft chart of the procedure suitable for use by the flight validation crew.

CAR 6.17 Ground Validation

- a) Ground validation of any new or amended IFP's is required and shall be conducted by an Independent APD.
- b) Where procedures share common segments, these may be assessed only once.
- c) Any concerns or changes required by the Independent APD shall be communicated to the APD who shall determine whether or not the IFP should be revised. Such concerns or changes shall be included in the IFP documentation.

CAR 6.18 Flight Validation

- a) A flight validation shall be carried out for the initial certification of an IFP based on ground navigation aids and in other IFP's when the ground validation determines it is necessary or when

determined necessary by the Authority. Flight validation is the responsibility of the Proponent.

- b) In the case of a RNAV IFP, the Authority may consider requiring only a flight simulator fly-ability and crew workload check to be part of the validation process. The Proponent shall request authorisation for the flight simulator validation in lieu of flight validation for every applicable RNAV IFP to be considered exempted from flight validation. For RNP AR IFPs a full flight simulator test database produced by a navigation database supplier shall be used. The navigation database suppliers must comply with RTCA/DO-200A and be in possession of a Type 2 Letter of Acceptance (LOA), issued by the appropriate regulatory authority.
- c) The Authority shall consider requiring a flight validation to be part of the validation process for RNAV IFPs in, but not limited to, the following situations:
 - 1. The IFP does not comply with PANS-OPS criteria,
 - 2. The IFP requires speed restrictions to be applied,
 - 3. Where segment lengths are significantly shorter than PANS-OPS optimum lengths;
 - 4. Descent gradients are steeper than 3.5° for precision approaches or 6.1° for non-precision approaches;
 - 5. The IFP is to be used in an obstacle rich environment;
 - 6. There is a SDF in the final approach segment;
 - 7. Track changes at a fix of 90° or more on an RNAV IFP,
 - 8. All RNP AR IFP.
- d) The objective of a flight validation is to:
 - 1. Verify the obstacle that is determined as the controlling obstacle for each segment and to check that no new obstacles have been erected since the IFP was created, or that no obstacle details are grossly inaccurate, to the extent that it may affect the IFP.
 - 2. Prove the fly-ability of an IFP whose ground validation caused some concern about track adherence or crew workload.
- e) The proponent shall establish procedures to ensure that flight validation is carried out in compliance with ICAO DOC 9906 Volume V by an organisation that can demonstrate compliance with ICAO DOC 9906 Volume VI.
- f) When required by the introduction of new ground based navigation facilities to be incorporated in an IFP, a flight inspection of the required navigation aids shall take place prior to the flight validation taking place.
- g) Flight validations shall take place in daylight, in VMC and flown at the minimum published altitudes for the relevant segments of the IFP.
- h) The final approach segment shall be flown 100ft below MDA on a non-precision approach and ½ scale deflection low, according to the DA, on a precision approach or APV.
- i) All segments of an instrument approach procedure that is below the Minimum Sector Altitude (MSA) shall be flown.

CAR 6.19 Maintenance of IFP's

- a) Each Proponent shall ensure that each IFP designed under their responsibility is reviewed whenever:
 - 1. There is a change to the obstacle environment which may affect the IFP,
 - 2. There is a change in navigation aid provision which may affect the IFP,
 - 3. There is a change in airspace that may affect the IFP,

4. There is a change in any other factor that may affect the IFP,
5. A period of 5 years has lapsed since the IFP was designed or last reviewed.

CAR 6.20 IFP Records

- a) Each applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall establish and maintain appropriate documents to support their IFP submission. These shall include, but not be limited to the following documents:
 1. Reference to all source documentation;
 2. Reference to all source data;
 3. Reference to all source geographical charts/data;
 4. Reference to the appropriate AIRAC validity of the UAE AIP aeronautical data used;
 5. Reference to atmospheric conditions used;
 6. References to any differences to ICAO DOC 8168 Volume II and if appropriate ICAO DOC 9613 and DOC 9905. Any differences shall include an appropriate approval obtained from the ANA department of GCAA;
 7. Reference to any specific requirements and/or instructions;
 8. Reference to mountainous terrain if appropriate;
 9. Reference to any speed and/or altitude restrictions;
 10. For all PBN IFP, ARINC 424 database coding;
 11. Draft AIP submission; and
 12. Draft IFP Chart in accordance with ANNEX 4.
- b) The documentation in CAR 6.20 a) above becomes the property and hence the responsibility of the Proponent once the IPDSP has officially signed over the documentation to the Proponent. Thereafter the IPDSP is responsible to only store a record of the official handover form signed by both parties.
- c) All records related to an IFP shall be retained for a period of 2 years beyond the date at which the IFP is replaced or withdrawn from use.

CAR 6.21 Safety and Quality Management System

- a) Each applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall provide:
 - 1. An acceptable Quality management system (QMS) in accordance with CAR Part VIII, Subpart 1, QMS requirements and in compliance with ICAO PANS-OPS DOC 8168 Volume II, Chapter 4, Quality Assurance; and ICAO Document 9906, Volume 1, Quality Assurance Manual for Flight Procedure Design.
 - 2. An acceptable Safety Management System (SMS) in accordance with CAR Part X and CAR Part VIII, Subpart 1.

CAR 6.22 Safety Inspections and Audits

- a) GCAA shall conduct an initial certification audit and thereafter audits of IPDSP at intervals not exceeding 3 years (36 months) at the IPDSP design office/facility.
 - I. IPDSP audits shall be conducted in compliance with the GCAA audit procedure;
 - II. Foreign based IPDSP shall be responsible for bearing the cost of travel and Per Diem as per GCAA policies in this regard;
 - III. By July of each year GCAA shall disseminate an audit program to IPDSP's detailing the Audit Schedule for the next year in order to allow IPDSP's to budget and plan for the audits.
- b) Failure to adhere to the applicable audit program and associated costs shall lead to the non-issuance or withdrawal of the GCAA IPDSP certificate.

CAR 6.23 Organisational Exposition

- a) Each applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall provide an exposition containing:
 - 1. A statement signed by the Head of the IPDSP on behalf of the applicant's organisation confirming that the exposition and any included manuals define the organisation and demonstrate its means and methods for ensuring ongoing compliance with this Subpart; and
 - 2. the exposition and any included manuals are required to be complied with by its personnel at all times; and
 - 3. that the organisation has sufficient financial strength to provide the services contained within the organisation's exposition; and
 - 4. the titles and names of the person or persons required by CAR6.7 a) 2-4; and
 - 5. The duties and responsibilities of the person or persons specified in the above CAR6.7 a) 2-4, including matters for which they have responsibility to deal directly with the Authority on behalf of the organisation; and
 - 6. An organisation chart showing lines of responsibility of the persons specified in CAR6.7 a); and
 - 7. Details of the applicant's staffing structure; and
 - 8. A document matrix detailing where the requirements of CAR 6.7 to CAR 6.10, CAR 6.12 and CAR 6.15 to CAR 6.20, are contained within the organisations operational manuals.
 - 9. Procedures to control amend and distribute the exposition.
- b) The applicant's exposition must be acceptable to the Authority.

CAR 6.24 Flight Procedure Design Software Validation

- a) Each applicant for the grant of a Certificate for the design of instrument flight procedures (IFPs) for aerodromes, heliports and airspace shall:
 - 1. Validate Design Software in compliance with ICAO DOC 9906 Volume III;
 - 2. Document non-compliances and differences identified;
 - 3. As part of their exposition in CAR 6.23 include what risks they have identified in these non-compliances/differences and how they will mitigate them; and
 - 4. As part of the training in CAR 6.8 show a process whereby users of the software are trained on these non-compliances/differences and these mitigation techniques.

CAR 6.25 Non-Compliance

- a) Non-compliance with this regulation may require the GCAA to restrict, suspend or revoke the IFPD Certificate.

APPENDIX 1 - DIFFERENCES FROM ICAO ANNEXES AND DOCUMENTS

The temperature to be used for calculations when designing IFPs for use in the UAE shall be 45° C or ISA + 30° , whichever is higher;
Design VPA for all Approach Procedures with Vertical Guidance (Excluding ILS) shall be 2.8°

Subject	Current status	GCAA accepted	Reference
Types of approaches that may be conducted in segregates parallel operations.	ILS/MLS precision approach SRA or PAR approach Visual approach	ILS/MLS precision approach SRA or PAR approach Visual approach Approaches with vertical guidance (APV)	ICAO DOC 4444 Chapter 6 paragraph 6.7.3.5.3
RNAV-1 Route centerline separation	NIL	The standard route centerline separations for RNAV 1 routes in the UAE will be 7 nm. GCAA will consider applications for reduction in spacing between route centerlines from ANSPs, provided that such applications are supported by a safety case that justifies the proposed reductions. Minimum RNAV 1 route centerline separation will never be less than the applicable RADAR separation criteria.	State Letter AN 13/2.5-09/85 ICAO DOC 4444 Chapter 5 ICAO Circular 324 AN/186
RNAV Turn Construction Parameters	Turn at IAF, IF,FAF <u>ICAO DOC 8168 VOL I</u> 3 second Pilot Reaction 3 second Bank Establishment. <u>ICAO DOC 8168 VOL II</u> 6 second Pilot Reaction 5 second Bank Establishment.	Turn at IAF,IF,FAF <u>ICAO DOC 8168 VOL I and II</u> 3 second Pilot Reaction 3 second Bank Establishment.	ICAO DOC 8168 VOL I & VOL II Table 1-2-3-1
Mode and area width change at 15 nm from the ARP/DER during RNAV 1 SID	Inconsistent references of mode and area width changes at 15 nm from DER and ARP.	For RNAV-1 SID the area width and mode change will occur at 15 nm from the ARP. For all RNAV operations where there is a discrepancy between the reference to ARP and the reference to DER in terms of mode and area width changes – use the ARP as reference.	ICAO DOC 8168 VOL II, PART III, SECTION I
Minimum RADAR Vectoring Altitude Charts	Application of buffer values around obstacles. ICAO DOC 8168 VOL II applies 3nm buffer around obstacles within 20nm from the RADAR and 5nm buffer outside of 20nm from the RADAR	At airports/areas with multiple overlapping SSR RADAR coverage the 3nm buffer and 5nm buffer is applied with reference to a 40nm distance from the ARP. At airports/areas with single SSR RADAR, the 3nm buffer and 5nm buffer is applied with reference to a 40nm distance from the RADAR antenna.	ICAO DOC 8168 VOL II, Part 2 Chapter 6