THE SIERRA LEONE CIVIL AVIATION REGULATIONS

PART 24 – FLIGHT PROCEDURE DESIGN SERVICES

MAY 2025

PREAMBLE

WHEREAS, The Director-General shall have power to perform such acts,-including the conduct of investigations, to issue and amend orders, rules, regulations and procedures pursuant to and in accordance with the Civil Aviation Act, 2023.

WHEREAS, the Director-General shall have the power to publish all reports, orders, decisions, rules, and regulations issued under the Civil Aviation Act, 2023 in such form and manner as may be best adapted for public information and use;

NOW THEREBY, the Director General, under its powers given by Articles 17(1) and 17(2) (a) of the Civil Aviation Act, 2023, issues the following regulations, which supersede previous regulations on Flight Procedure Design Services.

1. **SHORT TITLE**

This regulation may be cited as Sierra Leone Civil Aviation Regulation "SLCAR Part 24 – Flight Procedure Design Services.

2. **EFFECTIVE DATE**

This Regulation shall come into force as of the 20th day of May 2025.

Ms Musayeroh Barrie

Director General

Sierra Leone Civil Aviation Authority SLCAA Director General

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1. GENERAL PROVISIONS

1.1 Definitions

When the following terms are used in this regulation, they have the following meanings:

(a) Aeronautical Information Publication (AIP) – A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.

(b) Approved IFP designer (APD) – An Instrument Flight Procedure (IFP) Designer who has met the Authority's competency requirements and holds an authorisation for the design of instrument flight procedures (IFPs) for aerodromes, heliports, and airspace within Sierra Leone Airspace.

(c) Approved Procedure Design Organisation (APDO) – An IFP Design Service Provider approved by the Authority for the provision of IFP Design Service in Sierra Leone.

(d) Authority. Sierra Leone Civil Aviation Authority

(e) Flight Procedure Designer. A person responsible for flight procedure design who meets the competency requirements as laid down in this regulation.

(f) Flight procedure design. The complete package that includes all the considerations that went into the development of an instrument flight procedure.

(g) Flight procedure design process. The process which is specific to the design of instrument flight procedures leading to the creation or modification of an instrument flight procedure.

(h) Independent Approved IFP Designer (IAPD) – An Approved IFP Designer who is involved in any IFP design validation activities, operating within the same QMS as the designing APD.

(i) Instrument Flight Procedure Quality Management System (IFP QMS) - A set of processes and procedures, mainly described in a manual, required for the planning and execution of Instrument Flight Procedure activities to ensure that quality assured procedures are provided in support of ATM operations.

(j) Instrument Flight Procedure Design Service (IFP DS) - A service established for the design, documentation, validation, maintenance, safeguarding, and periodic review of IFPs necessary for the safety, regulatory, and efficiency of air navigation.

(k) Instrument Flight Procedure Design Service Provider (IFP DSP) – An IFP DSP is a body that provides an IFP Design Service.

(l) Instrument Flight Procedure (IFP) – A description of a series of predetermined flight manoeuvres by reference to flight instruments, published by electronic and/or printed means. This includes:

(i) Standard Instrument Departure (SID) – A designated IFR departure route linking the aerodrome or a specified runway of the aerodrome with a specified significant point, normally on a designated ATS route, at which the en-route phase of a flight commences.

(ii) Standard Instrument Arrival (STAR) – A designated Instrument Flight Rules (IFR) arrival route linking a significant point, normally on an ATS route, with a point from which a published IAP can be commenced. (ICAO – Annex 11 'Air Traffic Services')

(iii) Instrument Approach Procedures (IAP) – series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, a missed approach to a position at which holding and/or an altitude which ensures en-route obstacle clearance criteria is met

(iv) Holding – a predetermined manoeuvre which keeps an aircraft within a specified volume of airspace while awaiting further clearance.

(m) Instrument flight procedure process. The overarching process from data origination to the publication of an instrument flight procedure.

(n) Integrity (aeronautical data). A degree of assurance that an aeronautical data and its value has not been lost or altered since the data origination or authorized amendment.

(o) Procedure. A specified way to carry out an activity or a process (see ISO 9000:2000 Quality management systems — Fundamentals and vocabulary, section 3.4.5).

(p) Process. A set of interrelated or interacting activities which transforms inputs into outputs (see ISO 9000:2000 Quality management systems — Fundamentals and vocabulary, section 3.4.1); hence "flight procedure design (FPD) process" or "instrument flight procedure process".

(q) Quality record. Objective evidence which shows how well a quality requirement is being met or how well a quality process is performing. Quality records normally are audited in the quality evaluation process.

(r) Review. An activity undertaken to determine the suitability, adequacy and effectiveness of the subject matter to achieve established objectives (see ISO 9000:2000 Quality management systems — Fundamentals and vocabulary, section 3.8.7).

(s) Validation. Confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled. The activity whereby a data element is checked as having a value that is fully applicable to the identity given to the data element, or a set of data elements that is checked as being acceptable for their purpose.

(t) Verification. Confirmation, through the provision of objective evidence, that specified requirements have been fulfilled. The activity whereby the current value of a data element is checked against the value originally supplied.

(u) Authorised Source – Person ultimately accountable for aeronautical information published in the Sierra Leone AIP.

(v) Data originator – Person or persons authorised to originate aeronautical information and data on behalf of the 'Authorised Source'.

(w) Flyability of an IFP – Determined by an assessment completed in a full flight simulator (ground validation) or an aircraft (flight validation) to check that the IFP is flyable by the anticipated range of aircraft types in various weight, speed and centre of gravity configurations, and in various weather conditions (temperature, wind effects and visibility). It is also designed to assess that the required aircraft manoeuvring is consistent with safe operating practices, and that flight crew workload is acceptable

(x) Sponsor – An aerodrome operator or representative from an aerodrome acting on the operator's behalf, or an ANSP, who proposes a new IFP design, changes to, or withdrawal of an existing IFP.

1.2 Applicability

1.2.1 This regulation prescribes the requirements governing:

(a) The approval of an Organisation and/or person who are, or want to become an Instrument Flight Procedure Design Service Provider (IFP DSP);

(b) Instrument Flight Procedure (IFP) approval;

(c) Validation of IFP;

(d) Maintenance of IFP, and

(e) Training, qualification and experience Requirements for Approved Procedure Designers (APD)

1.2.2 This regulation shall ensure that Instrument Flight Procedures (IFPs):

(a) are designed in accordance with the required standard as stipulated in 4.

(b) are safe and flyable;

(c) meet Air Traffic Management requirements; and

(d) are environmentally acceptable.

1.3 Requirements for Approval

1.3.1 No person shall provide an Instrument Flight Procedure Design Service for Sierra Leone without the approval of the Authority and in accordance with the approval for the design of instrument flight procedures (IFPs) for aerodromes, heliports, and airspace.

1.4 Application for Approval

1.4.1 Each applicant for the grant of Approval for the design of instrument flight procedures (IFPs) for aerodromes, heliports, and airspace shall complete an application for an IFPD Approval.

1.4.2 All elements of the form shall be completed.

1.4.3 If an applicant has previously been granted a procedure design approval, and the approval was cancelled, the applicant must include with the application any information to show that the applicant could now properly design IFPs of the type or types concerned.

1.4.4 The application shall be submitted along with payment of the appropriate fee prescribed by the Authority.

1.5 Issue and Validity of Approval

1.5.1 An applicant shall be entitled to approval for the design of instrument flight procedures (IFPs) for aerodromes, heliports, and airspace if the applicant meets the approval requirements in this regulation.

1.5.2 The Approval for the design of instrument flight procedures (IFPs) for aerodromes, heliports, and airspace shall remain valid unless:

(a) The organisation fails to demonstrate compliance with the applicable requirements and/or their IFP QMS

(b) The organisation no longer meets the eligibility requirements for this approval

(c) The approval has been surrendered or revoked

1.5.3 The holder of Approval for the design of instrument flight procedures (IFPs) for aerodromes, heliports, and airspace that is suspended or revoked shall immediately return the approval to the Authority.

1.5.4 The Approval shall remain valid subject to periodic surveillance audits conducted at the discretion of the Authority confirming ongoing compliance with the Civil Aviation Regulations.

1.5.5 The Authority shall undertake a complete Approval inspection at least once in every five (5) years following the issue of an IFP DSP Approval.

2. IFP DESIGN SERVICES PROVIDER (IFP DSP) APPROVAL REQUIREMENTS

2.1 IFP Quality Management System

2.1.1 Applicants for Approval as IFP DSP shall demonstrate they have established and continuously maintained a suitable IFP Quality Management System (QMS), described in a Procedure Design Manual (PDM) which is proportionate to the size of the organisation and the complexity of the IFP design activities.

2.1.2 IFP Quality Management System shall include the following as a minimum:

(a) Responsibility and accountability within the organisation are clearly defined. The structure of the organisation will influence the number of resources available to fulfil the roles described below. When a person is assigned with multi-roles, the Authority considers that transparency and independency are key factors for the delivery of an efficient IFP service:

(i) Accountable Manager – The Accountable Manager is accountable to the Authority for the safety and quality of the designs submitted. They are responsible for ensuring that the staff is aware of roles and responsibilities within the company as well as their adherence to the QMS. The Accountable Manager may be one of the approved IFP designers within the organisation.

(ii) Quality Manager – The Quality Manager is responsible for the management and ongoing maintenance of the company's IFP QMS.

(iii) Lead Designer – The organisation should nominate a person who is an approved IFP designer and the first point of contact for the Authority regarding submitted designs, technical and policy-related matters.

(iv) Approved IFP designer – IFP designers holding approved status; a minimum of 2 Approved IFP Designers is required for each IFP DSP.

(b) A detailed process for the management and the processing of the required aeronautical data set to facilitate IFP design activities such as:

(i) A process for both internal and external transfer of aeronautical data in accordance with SLCAR Part 15

(ii) A record control and storage system of input data including items e.g.:

(1) Aerodrome Survey

(2) AD 2.10 Data (when applicable).

(3) Other obstacles (e.g. DVOF/spot heights/etc.)

(4) Terrain data.

(5) Airspace Data.

(6) Charts/Maps.

(iii) A process for management/processing/transfer/import of required data into the design environment.

(iv) The data handling process used by the IFP designer including all IFP processes and procedures to provide demonstrable proof of data quality, integrity, and accuracy. A full reference to any maps or charts is required. Copies of paper maps used will be required unless electronic versions are available and provided.

(v) A process for the verification of data sets used within the IFP design activities, for example:

(1) Completeness of data sets.

(2) Validity of data.

(3) The latest available data sets are used.

(c) The IFP QMS should include key performance indicators to help the service provider measure the performance towards goals and objectives. These indicators should support the organisation to identify the causes of substandard performance, determine the implication, and eliminate or mitigate such causes.

(d) A system of internal audits, compliance monitoring, and system change management process. This process shall include a feedback system of findings to ensure the effective implementation of corrective actions and opportunities for continuous improvement.

(e) A set of processes, procedures, and work instructions covering steps from the collection of sponsor requirements to the publication of the procedure in the AIP for IFP Design activities.

(f) A training programme and associated training plans to ensure that all IFP designers are suitably trained and competent and current to exercise the privileges as granted by their approval:

(i) Clearly defined and documented requirements for IFP design competencies within the organisation.

(ii) A structured training programme for the development of IFP designs that should be competency-based and in line with the process as described in ICAO Doc 9906 Volume 2 “Flight Procedure Designer Training” as applicable.

(iii) A process in identifying training requirements for individuals within the organisation.

(iv) The training programme shall demonstrate how individuals are assessed to be competent for the development of IFP design within the organisation and documented as such.

(v) The training programme must ensure that Approved IFP designers within their respective company have acquired and maintained their competencies through OJT, recurrent training (at an interval of not more than three (3) years) and refresher training.

(vi) A record of all training-related activities, and individuals’ training and competencies records.

(vii) Evidence of completed training and subsequent IFP design activities for conventional IFP designs, PBN IFP designs and helicopter Point in Space (PinS) designs (as applicable)

(viii) Where a designer’s ab-initio training did not start within the same company i.e. if a designer has moved from one company to another; a process to assess and establish the designer’s competency. This process should also include a documented record demonstrating the designer’s relevant professional experience and associated evidence of their design experience.

(ix) A formal means of internal communication that ensures all IFP designers are fully aware of the IFP QMS that allows critical information to be conveyed and that makes it possible to explain why particular actions are taken and why procedures are introduced or changed.

(x) Where automation is employed as part of the design process, clear documentation relating to the design tools is required. This will need to include the following:

(1) The user requirements for the design tools.

(2) Selection and procurement criteria of the design tools.

(3) Evidence of installation and validation of the design tool in compliance with ICAO DOC 9906 Volume 3.

(4) Control procedures for validation of design software for both the current (active) version and any versions that may be undergoing validation activities in accordance with ICAO Doc 9906 Volume 3 ‘Flight Procedure Design Software Validation

(g) Document control ensuring all documents are suitably managed; the following factors shall be addressed:
   (i) Document control, management and storage of all relevant reference material
   (ii) Document control, management and storage of all IFP-related documents.
   (iii) Naming convention to be applied to documentation within the organisation.
   (iv) Record and version control system of design drawings, worksheets, input and output parameters, reports, draft charts, coding tables, FAS Data blocks, and related products from IFP Design activities.

(h) Processes to carry out ground validation (compliance checking) of IFP Design activities by an Independent Approved IFP Designer.

2.2 Facility Requirements

2.2.1 Each applicant for the grant of Approval 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).

3. APPROVAL OF IFP DESIGNERS

3.1 Applicants for approval as APD for the design of instrument flight procedures (IFPs) for aerodromes, heliports, and airspace shall provide evidence of the following qualifications and experience:

(a) Specialist procedure design training in accordance with a competency-based approach as described in ICAO Doc 9906, Volume 2, Flight Procedure Designer Training;

(b) Proof of successful completion of a PANS-OPS training course based on ICAO PANS-OPS Doc 8168 and ICAO Doc 9906 Volume 2, given by an organisation acceptable to the Authority

(c) a comprehensive record of all training activities and competency assessments for all IFP designers

(d) a record of the designers' competency and currency for each procedure type

(e) resume detailing the aviation experience of the individual.

(f) a documented list of completed designs including the following detail as a minimum:
   (i) Name of the IFP designer
   (ii) IFP type and date completed
   (iii) Involvement in IFP Design, i.e. Designer or Independent Checker/validator.

(g) For the design of PBN IFPs, evidence of completing ARINC 424 training is required.

(h) For the design of Helicopter PinS procedures, evidence of completing a PinS training course is required and OJT should be demonstrated.

(i) If the CAA believes that further design evidence is requested to inform our regulatory decision, the applicant will be contacted.

(j) Evidence supporting the designer's relevant Skills, Knowledge, and Attitude (SKAs):

(i) IFP designers need to demonstrate an ability to work as part of a team (attitude) in accordance with the SKAs documented in ICAO Doc 9906 Volume 2 "Flight Procedure Designer Training".

4. IFP DESIGN PROCESS

4.1 The IFP DSP shall provide evidence that the quality assurance process outlined in ICAO Doc 9906 Volume 1 is being followed for the design of instrument flight procedures (IFPs) for aerodromes, heliports, and airspace.

4.2 The IFP DSP shall ensure use of validated and certified survey data for flight procedure design analysis. The source of terrain, obstacle, and aeronautical data used in IFP design must be documented.

4.3 The IFP DSP shall document the effective date and AIRAC of the aeronautical information used in the design of instrument flight procedures (IFPs) for aerodromes, heliports, and airspace.

5. IFP DESIGN CRITERIA

5.1 IFPs shall be designed in accordance with the criteria contained within ICAO PANS-OPS Doc 8168 Volume II and or ICAO Doc 9905 as appropriate.

5.2 IFPs shall be designed in accordance with the processes detailed in 4.1, with respect to consultation with stakeholders in the affected airspace.

5.3 Each new or revised IFP shall be verified by a qualified Instrument flight procedure designer other than the one who designed it to ensure compliance with applicable criteria.

5.4 All terminal IFPs shall be designed to consider continuous climb and descent operations.

5.5 Published IFPs shall be reviewed at intervals not exceeding five (5) years to ensure that they continue to comply with changing criteria, to confirm continued adequate obstacle clearance and continue to meet user requirements.

6. INSTRUMENT FLIGHT PROCEDURE DESIGN DOCUMENTATION

6.1 IFP DSP shall develop and maintain flight procedures design documentation that includes:

(a) information required for publication in the AIP;

(b) details and assumptions made by the flight procedure designer such as:

(i) controlling obstacle for each segment of the procedure;

(ii) effect of environmental considerations on the design of the procedure;

(iii) infrastructure assessment;

(iv) airspace constraints;

(v) for modifications or amendments to existing procedures, the reasons for any changes;

(vi) for any deviation from existing standards, the reasons for such a deviation and details of the mitigations applied to assure continued safe operations; and

(vii) the results of the final verification for accuracy and completeness (quality assurance checks) before validation and then before publication.

(c) additional documentation required to facilitate ground and flight validation of the procedure.

6.2 All documentation shall undergo a final verification for accuracy and completeness before validation and publication.

6.3 All procedure design documentation shall be retained for at least two (2) years after the operational lifetime of the procedure.

6.4 The documentation in 6.1 above becomes the property and hence the responsibility of the Sponsor once the IFP DSP has officially signed over the documentation to the Sponsor. Thereafter the IFP DSP is responsible to only store a record of the official handover form signed by both parties.

7. VALIDATION OF INSTRUMENT FLIGHT PROCEDURES

7.1 Validation

7.1.1 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.

7.1.2 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.

7.1.3 An APD shall prepare an IFP validation package to enable an Independent APD to carry out a Ground validation of the IFP.

7.1.4 The package shall include:

(a) A plan view of the final approach obstacle evaluation,

(b) Complete documentation identifying obstacles, obstructions, and terrain relevant to the IFP, including identifying the controlling obstacle/terrain,

(c) Narrative description of the IAP, segment by segment.

(d) Plan and profile views of the IAP.

(e) Data relating to each fix and holding pattern involved in the IAP,

(f) Confirmation that Navigation aid coverage, if applicable, is satisfactory

(g) Draft chart of the procedure suitable for use by the flight validation crew.

7.2 Ground Validation

7.2.1 Ground validation of any new or amended IFPs is required and shall be conducted by an Independent APD.

7.2.2 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.

7.3 Flight Validation

7.3.1 A flight validation shall be carried out for the initial approval of an IFP based on ground navigation aids and other IFPs when the ground validation determines it is necessary or when determined necessary by the Authority. Flight validation is the responsibility of the Sponsor.

7.3.2 In the case of an RNAV IFP, the Authority may consider requiring only a flight simulator flyability and crew workload check to be part of the validation process. The Sponsor 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.

7.3.3 Flight validation shall be conducted whenever the following conditions exist:

(a) Deviations from ICAO PANS-OPS Doc 8168 IFP design criteria.

(b) The introduction of new procedures at an aerodrome, such as PinS or Required Navigation Performance (RNP) approaches or RNP AR or IFPs for use at an aerodrome with a non-instrument runway with or without approach control.

(c) modified/amended IFP differs significantly from existing procedures

(d) Procedures designed for use in complex airspace where close coordination between ANSPs is required to mitigate risks, mountainous terrain area, and/or a dense obstacle environment

(e) If the accuracy and/or integrity of obstacle and terrain data cannot be determined by other means

7.3.4 Flight validation shall be carried out in compliance with ICAO Doc 9906, Volume 5 — Validation of IFP.

7.3.5 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.

7.3.6 Flight validations shall take place in daylight, in VMC, and flown at the minimum published altitudes for the relevant segments of the IFP.

7.3.7 The APD shall provide all data required to conduct a flight validation, flight inspection, and flight simulator evaluation to the entity conducting the exercise.

7.4 Flight Validation Plan

7.4.1 A flight validation plan shall be submitted to the Authority for all simulator/flight validation activities.

7.4.2 As a minimum the flight validation plan shall include the following items:

(a) Information relating to the Flight Validation Pilots including qualifications.

(b) Aircraft/simulator to be used including avionics.

(c) Name of the navigation database provider (DAT provider).

(d) Planned date and time of the validation activities

(e) Where applicable the plan shall include the detail for the validation of VM(C) area and night validation, making sure to specify if there are no existing IFPs or if the use of night operations is new at the aerodrome.

(f) The documentation containing each sequence of the validation runs i.e. which procedure, wind velocity, weight, low/high temperature.

(g) The details of any IFP/elements of the procedure/segments that require the assessment of the IFP flyability under varying wind conditions.

(h) The details of any IFPs with minimum segment lengths which will need to be flown at maximum speeds in varying wind conditions identified as appropriate to the aerodrome, e.g. this will include average wind and extreme wind conditions experienced at the aerodrome in the previous 5 years;

(i) The IFP APDO draft charts, coding tables, and FAS DBs as applicable in order to facilitate the validation.

(j) While the default is for all IFP segments to be assessed, if a segment within a SID/STAR is considered by the sponsor to not need validation, the Authority will consider and assess the rationale and the evidence provided by the sponsor and the APDO.

(k) Provide a clear explanation of the expected output from the validation activities.

(l) For validation at aerodromes with no existing IFPs:

(i) A plan view of the final approach obstacle evaluation template, drawn on an appropriate topographical map of scale 1:50,000 or appropriate aeronautical chart to demonstrate safe use for navigation, the elevated terrain analysis, and the obstacles and obstructions evaluation.

(ii) All completed documents identifying the associated terrain, obstacles, and obstructions as applicable to the procedure. The controlling terrain/obstacle should be identified and highlighted on the appropriate chart.

(m) Details of how the navigation database validation will be completed and by whom

7.5 Flight Validation Pilot (FVP) Requirements

7.5.1 The qualifications and experience for Flight Validation Pilot shall include:

(a) At least a Commercial Pilot's Licence with instrument rating (A) or (H) as applicable

(b) successful completion of the Flight Validation Pilot course in accordance with ICAO Doc 9906, Volume 6

(c) Extensive experience in IFR operations

(d) Experience and qualified in a related role such as flying operations inspector or flight inspection/calibration pilot

(e) Capable to conduct RNP APCH operations in at least one aircraft type

(f) Experience on FMS/GNSS equipped transport category aircraft

(g) The minimum crew requirements for the aircraft shall be met e.g. one pilot flying and one pilot as the observer to assist the pilot in the validation process while observing the “out of cockpit” environment

8. SAFETY RISK ASSESSMENT OF IFPD

8.1 A safety risk assessment shall be conducted before implementing a new flight procedure or a change to an existing flight procedure to demonstrate that an acceptable level of safety will be met.

9. APPROVAL OF INSTRUMENT FLIGHT PROCEDURES

9.1 IFP Submission Package Requirements

9.1.1 The instrument flight procedure submission package to the Authority, compliant with the IFP QMS, shall include but not be limited to the following:

(a) All source documentation

(b) All data used in the design process must be submitted in source format, as well as any modified formats created during the design process

(c) All source geographical charts/data;

(d) List of relevant obstacles, identification and description of controlling obstacles for each segment and obstacles otherwise influencing the design of the procedure,

(e) Waypoint ID/Fix name, waypoint latitude/longitude (where applicable), procedural tracks/course, distances and altitudes

(f) Any specific environmental requirements related to IFP(e.g. noise abatement, non-standard traffic patterns, etc)

(g) Any discrepancies with the data used during the IFP design process between the AIP and the latest survey data to be detailed in the IFP Design report.

(h) A record of all calculations including formulae to be provided to prove compliance with, or variation from the criteria and IFP QMS

(i) The context and the operational requirements of the IFP proposal and a comprehensive IFP Design report (including design rationale).

(j) Any deviation from the ICAO PANS-OPS Doc 8168 IFP Design criteria if appropriate ICAO DOC 9613 and DOC 9905.

(k) Identification any specific training, operational or equipment requirements due to deviation/s

(l) A draft chart (in accordance with Annex 4) and PBN coding table/FAS DB (for PBN IFPs) and a separate table showing all track degrees true to 1/100th degree for conventional IFPs.

(m) Annotated AIP Published Charts. PBN Coding tables may be accepted for periodic review however a new FAS DB will be required.

(n) Appropriate validation checklist and report forms

(o) relevant signed validation reports.

9.2 IFP Approval

9.2.1 Instrument flight procedures for civil aircraft in Sierra Leone shall be approved by the Authority before publication.

9.2.2 The Authority shall only accept IFPs designed by APDO

9.2.3 Instrument flight procedures shall only be approved based on the following:

(a) The Authority has approved the IFP DSP through evaluation of their training, APD qualification and experience, quality procedures, and working practices as specified in this regulation;

(b) Authority evaluation and acceptance of completed IFP designs and documentation as prescribed in this regulation.

10. PUBLICATION OF INSTRUMENT FLIGHT PROCEDURES

10.1 The Sponsor shall provide flight procedure designs/charts to the AIS provider for publication in the AIP.

10.2 The IFP shall be accompanied by a narrative, which describes the procedure in textual format

10.3 The intended effective date for operational use of the IFP shall be included in the document narrative.

11. MAINTENANCE OF IFP

11.1 Each Sponsor shall ensure that each IFP designed under their responsibility is reviewed whenever:

(a) A new survey/updated survey of the airport or the associated runway takes place;

(b) There is a change to the obstacle environment which may affect the IFP,

(c) There is a change in navigation aid or runway threshold provision which may affect the IFP,

(d) The procedure design criteria is/are amended

(e) There is a change in airspace that may affect the IFP,

(f) There is a change in any other factor that may affect the IFP,

(g) A period of 5 years has lapsed since the IFP was designed or last reviewed.

12. SAFETY INSPECTIONS AND AUDITS

12.1 The Authority shall conduct an initial approval audit and thereafter audits of IFP DSP at intervals not exceeding five (5) years at the IPDSP design office/facility.

12.2 IFP DSP audits shall be conducted in compliance with the Authority audit procedure.

12.3 The Sponsor shall be responsible for bearing the cost of travel and Per Diem as per the Authority policies with regard to the audit of foreign-based IFP DSP.

12.4 Failure to adhere to the applicable audit program and associated costs shall lead to the non-issuance or withdrawal of the Authority IFP DSP approval.