



AFRICAN FLIGHT PROCEDURE PROGRAMME (AFPP)

**To Enhance Sustainable Instrument Flight Procedure Capability
in African States**

Prepared by the

International Civil Aviation Organization (ICAO)

For the

**Agency for the Air Navigation Safety in Africa and Madagascar (ASECNA)
As Host Administration**

**And the civil aviation Administrations
of other Participating Members**

February 2019

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Revision B of Annex 2
to the
Management Service Agreement between the
Agency for the Air Navigation Safety in Africa and Madagascar (ASECNA)
and the
International Civil Aviation Organization (ICAO)

The Special Africa-Indian Ocean (AFI) Regional Air Navigation (RAN) Meeting, Durban, South Africa, 24 to 29 November 2008, supported the concept of a Flight Procedure Programme (FPP) for the AFI Region¹.

The 37th Session of the ICAO Assembly in 2010 under its Resolution A37-11 reaffirmed the global commitment for PBN implementation and called upon States to complete and submit to ICAO their PBN implementation plans as a matter of urgency. The Assembly also requested ICAO to develop a coordinated action plan to assist States in the implementation of PBN and to ensure development and/or maintenance of globally harmonized SARPs, Procedures for Air Navigation Services (PANS) and guidance material including a global harmonized safety assessment methodology to keep pace with operational demands.

The 38th Session of the ICAO Assembly in 2013 in its Resolution A38-7 further urged African States to support the implementation of the Flight Procedure Programme (FPP) Office for Africa through personnel secondments and/or financial support, as quickly as possible, in order to accelerate PBN implementation in the Region.

In order to increase safety and efficiency of Instrument Flight Rules (IFR) procedures, improve accessibility and achieve environmental benefits of PBN in Africa, African States have agreed to establish a Performance Based Navigation (PBN) Flight Procedure Programme (the African FPP) with the objective of developing their capabilities in the instrument flight procedure domain.

In this regard, a letter of Intent for the establishment of the African FPP was signed by ICAO, ASECNA and DGAC France on 20 November 2012.

ASECNA has agreed to host the African FPP for an initial period of three years with a renewable three-year option. The initial phase (Phase I) of the Programme was carried out from 2 June 2014 to 31 May 2017. During its 4th meeting in Abidjan, Côte d'Ivoire, from 20 to 21 April 2017, the Steering Committee of the African FPP further extended the African FPP Phase I until 30 November 2017, and approved the renewal of the Programme for another period of three years (Phase II) starting from 8 February 2019

This Agreement covers Phase I and Phase II of the African FPP.

¹ AFI States at the time of the Special AFI RAN in 2008 and during the 38th Session of ICAO Assembly comprised all African States, and therefore reference is made to all African States in this Programme document

Description of Programme

This document defines the scope of ICAO assistance to African States through the African Flight Procedure Programme (AFPP) hosted by ASECNA, in close collaboration with the ICAO Regional Offices accredited to them, in developing their capabilities in the instrument flight procedure domain, including the development of national PBN implementation plans, implementation of instrument flight procedures, regulatory oversight of the flight procedure design and PBN operational approval of national air operators.

The AFPP is considered as a centre of excellence in the field of flight procedure design applying best practices in the provision of training, and using automation solutions and quality assurance processes with subject matter experts to address PBN implementation needs in Africa. The core membership of the Programme comprises Active Members who provide annual contributions to the Programme. All the Participating Members, i.e. Active Members, Users, Observers and Donors are eligible signatories of the Programme Document in accordance with their commitment and mandate.

***States:** Note that States can be represented in the AFPP by:

- a) Regulatory oversight entities, such as civil aviation authorities or ministries;
- b) Service providers, such as aerodrome operators or air navigation service providers; or
- c) Regional entities which carry out regulatory oversight functions or provide services related to aerodromes or air navigation on behalf of one or more States;
- d) State owned training organization

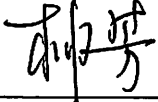
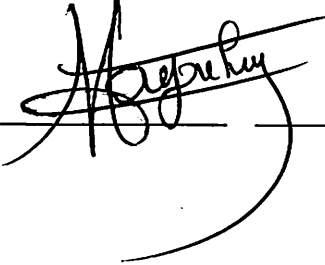
Note: This Programme Document is not intended and should not be construed as a recognition or endorsement by ICAO of any functions and/or responsibilities entrusted to or performed by any such regional entities.

Management Services to be provided:

ICAO will provide the following services to Participating Members having joined the AFPP:

- a) AFPP oversight;
- b) Assignment of Programme personnel to assist in achieving the planned immediate objectives through the production of relevant outputs, by carrying out activities generally described in the Programme document;
- c) Technical support of the Programme experts, including technical briefing and debriefing;
- d) Technical review of Programme outputs and review/finalization/distribution of Programme reports;
- e) Programme progress monitoring; and
- f) Administrative support, such as management of the project funds.

Budget Estimate: A budget estimate of the Programme is provided as Appendix 4.

| Signed on behalf of: | Signature | Name/Title | Date |
|--|---|------------------------------------|-----------------|
| International Civil Aviation Organization |  | Fang Liu Secretary General | 6 November 2019 |
| Agency for the Air Navigation Safety in Africa and Madagascar |  | Mohamed Moussa Director General | 30/12/2019 |



INTERNATIONAL CIVIL AVIATION ORGANIZATION

PROGRAMME DOCUMENT

Programme Title: African Flight Procedure Programme (AFPP)

Programme No.: RAF 14801

Duration: 7.3 years

Sector and Sub-Sector: Safety – Performance Based Navigation
Air Navigation– Capacity and Efficiency


Country Implementing

Agency: Participating Members (see section 5 of the present document) as (check one):

| | |
|--------------------------|---|
| <input type="checkbox"/> | Active Member (A Participating Member that commits to funding the Programme by means of an annual financial contribution in line with an approved budget). |
| <input type="checkbox"/> | User (A Participating Member that is not an Active Member, but one that intends to use the AFPP services). |
| <input type="checkbox"/> | Observer (A Participating Member that is not an Active Member or a User Member). |
| <input type="checkbox"/> | Donor (Participating Member that supports the African Flight Procedure Programme). |

Executing Agency : International Civil Aviation Organization (ICAO)
Location : Dakar, Senegal
Start Date : 2 June 2014
Estimated Programme : 7 February 2022
Cost : US \$ 2 million

Brief Description: The Programme objective is to assist States to develop sustainable capability in the instrument flight procedure (IFP) domain so as to meet their commitments under Assembly Resolution A37-11 for Performance Based Navigation (PBN) implementation and their obligations for the quality of their IFPs. This will be accomplished through training, assistance with quality assurance, procedure design and access to IFP-related automation solutions.

| Signed on behalf of: | Signature | Name/Title | Date |
|---|---|-------------------------------|-----------------|
| International Civil Aviation Organization |  | Fang Liu Secretary General | 6 November 2019 |
| Pco g'qhUcvg1Qti cplkvqp | _____ | _____ | _____ |

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1. BACKGROUND

- 1.1. ICAO developed harmonized navigation specifications for all existing areas of operations, and published these navigation specifications in the Performance Based Navigation (PBN) Manual (Doc. 9613).
- 1.2. The Special Africa-Indian Ocean (2nd AFI) Regional Air Navigation (RAN) Meeting in Durban, South Africa, from 24 to 29 November 2008 supported the concept of the Flight Procedures Programme (FPP).
- 1.3. The 37th session of the ICAO Assembly in 2010 in its Resolution A37-11 reaffirmed the global commitment for PBN implementation and called upon the States to complete a PBN implementation plan as a matter of urgency and ICAO to develop a coordinated action plan to assist States in the implementation of PBN and to ensure development and/or maintenance of globally harmonized Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services (PANS) and guidance material including a global harmonized safety assessment methodology to keep pace with operational demands.
- 1.4. The 38th session of the ICAO Assembly in 2013 in its Resolution A38-7 urges AFI States to support the implementation of the Flight Procedure Programme (FPP) Office for AFI Region by personnel secondment and financial support with required swiftness in order to accelerate the PBN implementation in the Region.
- 1.5. In 2009, ICAO published the Quality Assurance Manual (Doc. 9906). This document addresses two levels of processes. A high-level process, called the instrument flight procedure process, covers all elements from initiation to publication of the procedure and the relevant maintenance, safety, validation and flight inspection activities. The process does not end with publication. Feedback from users must be considered in the improvement process. A second specific process, for the design of the instrument flight procedure — the flight procedure design (FPD) process — is part of the IFP process.
- 1.6. The conclusions from the 19th Meeting of the Africa and Indian Ocean Navigation Planning and Implementation Regional Group (APIRG/19) and the associated report from that meeting highlighted the strong support for PBN implementation and the establishment of a Flight Procedure Programme in the Region.
- 1.7. The conclusions from the 20th Meeting of the Africa and Indian Ocean Navigation Planning and Implementation Regional Group (APIRG/20) and the associated report from that meeting highlighted the strong support for continuing PBN implementation and the important role of the African Flight Procedure Programme (AFPP) to support the PBN development in the Region.

2. ISSUES AND OPERATING CONCEPT

2.1. Issues

- 2.1.1 Instrument flight procedures developed to take advantage of the benefits of PBN are reliant on the data in a database on the aircraft. For this reason, quality assurance in the flight procedure design process, while always important, takes on added importance for PBN-based procedures. A great safety concern in this respect is that many States lack the expertise to establish a sustainable internal procedure design capability, meeting the requirements of procedures for air navigation services – aircraft operations (PANS-OPS) and their responsibility under Annex 15 for the quality of their aeronautical information and data, including instrument flight procedures.

2.1.2. Following are some of the main procedure design-related issues and problems faced by States; some of them were identified by the APIRG as follows:

- a) Lack of regulatory oversight framework;
- b) Incomplete implementation of A-37-11 for airports in African States related to PBN flight procedures;
- c) Lack of expertise: State have to develop internal PBN capabilities;
- d) Insufficient number of procedure designers;
- e) Insufficient procedure design work in some States to attain or maintain proficiency;
- f) Lack of airspace and procedure design training: initial, OJT, and/or recurrent;
- g) Lack of knowledge to integrate procedure design efficiently into airspace design;
- h) Lack of depth in procedure design organization to perform quality assurance (QA);
- i) Insufficient expertise in procedure design organization to provide adequate QA of procedures;
- j) Lack of procedure design and obstacle data storage automation in the States;
- k) Lack of operational approval expertise to obtain proper operational approval and to oversee operators for PBN operations;
- l) Lack of regulatory expertise to oversee the process leading to procedure publication; and
- m) Lack of service provision for ATC/ATM training for PBN implementation.

2.2. Operating Concept

2.2.1. The Participating Members of the project are Active Members, Users, Observers and Donors. Their respective roles are defined in section 5.

2.2.2. The African FPP (AFPP) would serve as a means to assist Participating Members to address the issues noted above in 2.1.2. The AFPP will foster implementation of instrument flight procedures, developed with the appropriate quality systems, especially focusing on PBN and vertically guided instrument approach procedures by:

- a) Assisting Participating Members with sufficient density of procedures to establish a sustainable internal procedure design capability capable of meeting the requirements of PANS-OPS and their responsibility for the quality of their procedures;
- b) Providing the appropriate level of technical expertise necessary to enable Participating Members that do not have the density of procedures necessary to sustain an internal procedure design capability; and
- c) Providing a vehicle to improve quality in the Participating Members' procedure design process through access to procedure design automation solutions and associated data storage.

2.2.3. At Participating Members' request, the AFPP would:

- a) Assist States in the development of the National PBN Plan implementation through operational assessment, business case and activity planning for PBN Implementation;
- b) Assist States in developing PBN-related regulations;
- c) Assist States in establishing an adequate regulatory oversight framework for implementing instrument flight procedure with Quality Assurance (QA) process including flight procedure regulatory approval;
- d) Assist States in air operators approval for PBN operations;
- e) Provide training course, refresher course and OJT to flight procedure designers, on-site or at the AFPP location;
- f) Provide training courses and OJT for QA including flight procedures regulatory approval, on-site or at the AFPP location;
- g) Provide training courses for ATC/ATM about PBN flight procedures operations;
- h) Provide training courses for States and Air Operators about PBN flight procedures operations;

- i) Assist Participating Members with data origination;
- j) Assist Participating Members instrument flight procedure and airspace designers in developing their procedures with priority for PBN procedures;
- k) Develop instrument flight procedures implementation for Participating Members that have no procedure design capability;
- l) Provide Participating Members (PMs) with any other associated assistance as required.

Note: In order to assist the Participating Members in expediting the implementation, both training and services can be extended to relevant stakeholders such as air operators and air navigation service providers in accordance with applicable ICAO Regulations, Rules, Policies and Procedures.

- 2.2.4. As part of the services provided in 2.2.3. above, the Programme would as needed during training:
 - a) Provide PM access to procedure design software applications at the AFPP location; and
 - b) Provide PM access to electronic terrain models and obstacle data storage.
- 2.2.5. Cost to Active Members for the services provided in 2.2.3. a) to i) and 2.2.4. above would be included in the basic AFPP annual contribution. Other services would be charged to the Participating Members as per a fee schedule approved by the Steering Committee.
- 2.2.6. All services for Users provided in 2.2.3. and 2.2.4 above would be charged as determined by the Steering Committee.
- 2.2.7. Cost levels as per 2.2.5 and 2.2.6 may be adjusted depending on the level of contribution to the Programme as decided by the Steering Committee.
- 2.2.8. The scope and timelines for services provided as per 2.2.5. and 2.2.6. and, where applicable, the related payment schedule are agreed between the AFPP Manager and the Participating Member (PM) via exchange of letters or e-mails, and corresponding payment requests will be issued by ICAO to the PM.

2.3. Relevant documents

- a) Annex 4– Aeronautical charts
- b) Annex 6 – Operation of aircraft
- c) Annex 14 – Aerodromes
- d) Annex 15– Aeronautical information services
- e) Doc. 4444 - Procedures for Air Navigation Services — Air Traffic Management
- f) Doc. 8168 - Procedures for Air Navigation Services — Aircraft Operations, Volume I — Flight Procedures and Volume II — Construction of Visual and Instrument Flight Procedures
- g) Doc. 8697 – Aeronautical chart Manual
- h) Doc 9613 - Performance-based Navigation (PBN) Manual
- i) Doc. 9674 - World Geodetic System — 1984 (WGS-84) Manual
- j) Doc. 9881 - Guidelines for Electronic Terrain, Obstacle and Aerodrome Mapping Information
- k) Doc. 9905 - Required Navigation Performance Authorization Required (RNP AR) Procedure Design Manual
- l) Doc. 9906 - The Quality Assurance Manual for Flight Procedure Design
- m) Doc. 9931 - Continuous Descent Operations (CDO) Manual
- n) Doc. 9992 - Manual on Use of Performance-Based Navigation (PBN) in Airspace Design
- o) Doc. 9993 - Continuous Climb Operations (CCO) Manual
- p) Doc. 9997 - PBN Operational Approval Manual

3. PROGRAMME IMPLEMENTATION STRATEGY

- 3.1. In order to support the goals of Assembly Resolution A37-11, Phase II of the Programme will commence on 8 February 2019 and is expected to last at least until 7 February 2022.
- 3.2. The following resources are planned to achieve the Programme objectives for Phase II:
 - a) The African Flight Procedure Programme (AFPP) is hosted by ASECNA in Dakar, Senegal. The office requirements are specified in Appendix 1;
 - b) The team of the Programme is composed of the Manager, experts seconded for the duration of the Phase II of the Programme, an administrative assistant and an IT specialist;
 - c) The AFPP Manager is recruited by ICAO. The Job description is presented in the Appendix 2-1;
 - d) The Chief of Operational Training seconded and administered by ASECNA as the Host Administration. The Chief of Operational Training is considered as a seconded expert and is based at AFPP premises in Dakar, Senegal. The Job description is presented in the Appendix 2-2;
 - e) The Chief of Procedure Designers is seconded and administered by Tanzania Civil Aviation Authority (TCAA). The Chief of Procedure Designers is considered as a seconded expert and is based in Dakar, Senegal. The Job description is presented in the Appendix 2-3;
 - f) Minimum one Procedure Designer/Instructor is seconded and administered by ASECNA. Additional procedure designers are seconded and administered by Participating Members. The Job description is presented in the Appendix 2-4;
 - g) Procedure Instructors / Designers would be seconded and administered by Participating Members. The Job description is presented in the Appendix 2-5;
 - h) One Data Specialist is seconded and administered by a Participating Member. The Job description is presented in the Appendix 2-6;
 - i) One Administrative Assistant and one Information Technology (IT) staff are recruited and administered by ICAO. Their Job descriptions are presented in the Appendices 2-7 and 2-8, respectively;
 - j) For seconded personnel, Participating Members will nominate appropriately qualified candidates that meet the job description requirements. The nominations will be evaluated and confirmed by the Regional Director (RD) of the WACAF Office in coordination with the RD of the ESAF Office and the AFPP Manager and administered by Participating Members. Upon said confirmation, the payment of allowances to the secondees, as well as the administration of their contracts will be done directly by the corresponding Participating Member (i.e. outside the contractual framework with ICAO). The amounts of the allowances are based on the project budget as approved during the 5th meeting of the AFPP steering committee (SC) and may be revised by the SC at any time. The annual contributions of Participating Members which administer secondees will be reduced by the amounts of the allowances paid to the secondees. Participating Members who administer secondees will confirm the duration of the contracts and the amounts of the paid allowances to ICAO for the calculation of their annual contributions.
- 3.2. The AFPP will build its capacity to provide assistance, training, quality assurance, procedure and airspace design, and operational approval to the Participating Members. Other specific fields may be identified during the Programme implementation. Additional staff will be requested as necessary to meet the demand.
- 3.3. The work plan for year 2019 is presented in the Appendix 3.
- 3.4. Implementation strategy detailed in 3.1 through 3.3 above may be revised by a decision of the Programme Steering Committee and ICAO.

4. EXPECTED OUTCOME OF THE PROGRAMME

- 4.1. States/Organizations in the Region will have significantly improved competency in procedure and airspace design, and regulatory and operational approvals (IFP design approval, PBN operational approval), as evidenced by implementation and training accomplished.
- 4.2. Operational improvements as follows:
 - i. Increase in robust State PBN implementation Plans;
 - ii. Increase in the number of PBN procedures implemented (including regulatory approval) and published in States AIP;
 - iii. Increase in the number of approved local carriers for PBN operations;
 - iv. Demonstrated evidence for improved safety and efficiency of flight operations.
- 4.3. A review by the Steering Committee should be conducted at least 6 months prior to the end of each Phase to determine whether the Programme should be continued into the next Phase, and if so, the strategic direction that the Programme should take.

5. INSTITUTIONAL FRAMEWORK

- 5.1. **Participating Members:** The Programme will be executed on the basis of the Programme Document signed by the Host Administration and ICAO and to which any State/Aviation organization wishing to participate shall sign on. In this regard, States/Organizations having signed Phase I Programme Document or Phase II Programme Document are deemed to be Participating Members.

5.2.1 **Active Members:** All African Members that commit to funding the Programme by means of an annual financial contribution in line with an approved budget become an Active Member.

5.2.2. **Users:** All African Participating Members who are not Active Members are Users.

5.2.3. **Observers:** Participating Members who are not Active Members or Users are Observers.

5.2.4. **Donors:** Participating Members that support the African Flight Procedure Programme by secondment of expert and/or provision of equipment, trainings, finance and any other proposed activities endorsed by the Steering Committee.

5.2.5. **Host Administration:** Organization or State hosting the Programme. During Phase II of the Programme, ASECNA is the Host Administration

5.3. Finances

5.3.1. AFPP Finances are composed of resources and expenses.

5.3.2 Resources are composed of:

- Annual contribution, paid by the Active Members. Level of contribution is approved by the Steering Committee; and
- Fees paid by Participating Members in relation to services provision as detailed in section 2.2 "Operating Concept".

5.3.3. Expenses are due to:

- Cost for the appointment of the AFPP Manager and locally recruited support personnel, i.e. their salaries and entitlements;
- All other approved expenses.

5.4. Steering Committee

5.4.1. The members of the Steering Committee consist of:

- One representative from each Active Member;

- One representative from the Host Administration;
- One representative from each Donor;
- One representative from African Civil Aviation Commission (AFCAC);
- One representative from each ICAO Regional Office accredited to at least one State with Participating Members of the AFPP;
- One representative from ICAO's Technical Cooperation Bureau (TCB) as facilitator/observer; and
- One representative from ICAO's Air Navigation Bureau (ANB) as facilitator/observer.

5.4.2. The role and responsibility of the Steering Committee include:

- Review and approve the Strategic Objectives and Annual Work Programme of the African-FPP;
- Review and approve the Programme Budget;
- Review and approve the amount of the annual financial contribution for Active Members;
- Review of the performance of the Programme and review the Programme document as necessary;
- Review and approve fees schedule for services and trainings; and
- Carry out the performance review of the AFPP Manager on an annual basis and for the probationary period.

5.5. Conduct of the Steering Committee meeting

- The Steering Committee meeting will be conducted at least once a year to accomplish the role and the responsibility of the Steering Committee as listed in 5.4.2;
- A Steering Committee meeting will consist of at least a third of Members of the Steering Committee including either the Chairperson or the Vice-Chairperson, and ICAO;
- The Chairperson and the Vice-Chairperson of the Steering Committee shall be elected from different African Active Members, for the duration of a phase of the Programme. They are responsible for convening the Steering Committee meeting;
- Steering Committee meeting attendance includes the Members of the Steering Committee and can be extended, upon agreement by the Steering Committee, to all Participating Members;
- The Steering Committee through the Chairpersons may invite other Stakeholders and experts to attend meetings and assist it in achieving the objectives of the Programme;
- The Steering Committee Meetings will be conducted in the English Language, and subject to availability of financial resources, in the English and French languages;
- The AFPP Manager is the Secretary of the Steering Committee and shall perform duties according to the job description in the Appendix 2-1.

5.5.1. ICAO will facilitate the assistance detailed in this Programme Document by providing overall Programme oversight, the inputs set out in 8.4 below, financial account management and budgetary control of the Programme, financial reports in accordance with its rules and procedures, and implementation monitoring of the Programme in cooperation with the Programme Manager. It will provide technical support to its experts in the performance of their duties and undertake monitoring missions.

5.5.2. The Host Administration and the Participating Members will provide the respective inputs, as set out in 8.1 to 8.3 below.

5.5.3. The AFPP Manager will be responsible for the local coordination and management of the Programme in accordance with the job description.

5.5.4. Voting rights

- Each member of the steering committee, except facilitators and observers, has one vote. In case the member is a regional organization, its number of votes is equal to the number of African States it represents.
- Active Members and Donors cannot vote if they have not honoured their committed contributions to the project, i.e. the annual contributions, equipment, secondees, etc.

5.6. Manager

- The AFPP Manager is the Secretary of the AFPP Steering Committee;
- The AFPP Manager develops the Work Programme in collaboration with the WACAF and ESAF Regional Offices and ANB;
- The AFPP Manager administratively reports to the WACAF Regional Office; and
- The AFPP manager reports to both the WACAF and ESAF Regional Offices for technical and operational matters.

5.7. Coordination with ICAO Entities

5.7.1. Regional Offices

- The WACAF and ESAF Regional Offices supervise, coordinate with and support the AFPP Manager who is responsible for the execution of the work Programme approved by the Steering Committee;
- The WACAF and ESAF Regional Offices collaborate with the AFPP to develop the Work Programme;
- The WACAF and ESAF Regional Offices monitor PBN implementation and capacity building progress; and
- The WACAF and ESAF Regional Offices communicate to the AFPP Manager the PM's needs.

5.7.2. ICAO Technical Cooperation Bureau (TCB)

- The TCB provides administrative and financial management support to the AFPP; and
- The legal advice is provided by the Legal Bureau, and TCB acts as facilitator.

5.7.3. ICAO Air Navigation Bureau (ANB)

- ANB reviews the AFPP technical work Programme to ensure that it is consistent with the ICAO Strategic Objectives and the ANB work Programme;
- Accordingly, ANB provides the technical/operation input/advice; and
- ANB facilitates the global coordination amongst the FPPs, specifically on educative tools/presentations etc. as necessary.

5.8. Legal context

5.8.1. Disputes resolution (Settlement of disputes)

- 5.8.1.1. Any dispute, controversy or claim arising out or relating to document, or the breach, termination or invalidity thereof, shall be settled, in the first instance, by direct negotiations between the parties. If unsuccessful, such dispute, controversy or claim shall be settled by Arbitration Rules with United Nations Commission on International Trade Law (UNCITRAL). Arbitration Rules, as in force at the time of arbitration. The place of arbitration shall be Montreal, Province of Quebec, Canada, conducted in the English language. Arbitration shall be conducted by one arbitrator. The arbitral award shall contain a statement of reasons on which it is based and shall be accepted by the Parties as the final adjudication of the dispute.

5.8.2. ICAO Privileges and Immunities

- 5.8.2.1 Nothing contained in or relating to this document shall be deemed a waiver, express or implied, of any of the privileges and immunities which may be enjoyed by ICAO, its funds, assets and personnel under applicable treaties, agreements, laws or decrees.

5.8.3. Liability

- 5.8.3.1. The PM shall indemnify, hold harmless and, in consultation with ICAO, defend ICAO, including its personnel from any and all actions, claims or other demands arising out of any act performed by ICAO on behalf of the PM pursuant to this Agreement.
- 5.8.3.2. The obligation under this clause does not lapse upon termination or completion of this Agreement.

5.8.4. All services provided by ICAO under this project shall be provided in accordance with ICAO's policies, practices, procedures and rules and subject to all necessary funds having been made available to ICAO.

6. PROGRAMME REVIEW, MONITORING AND REPORTING

- 6.1. The Programme will be monitored by ICAO Headquarters, ICAO ESAF and ICAO WACAF Regional Offices in collaboration with TCB.
- 6.2. The AFPP Manager will provide quarterly reports on the implementation of the Programme to ICAO Regional Offices, Air Navigation Bureau (ANB), Technical Cooperation Bureau (TCB) on the progress of the AFPP, and to the members of the Steering Committee via WACAF Regional Director.
- 6.3. The AFPP Manager will provide an Annual Report to the Steering Committee via the ICAO WACAF Regional Director.
- 6.3. At least two months prior to the end of his assignment, the AFPP Manager will submit a draft Final Report to ICAO WACAF Regional Director.

7. PHASE II STRATEGY

The objectives assigned to the AFPP are described in 2.2.3 of the present document. The following objectives are targeted for 2019.

7.1. Objective 1

Assist Participating Members in urgent development or finalization of robust National PBN Implementation Plan, using AFPP expertise.

7.1.1. Output 1.1

Establish dedicated assistance Programme (contents and schedule) for activity.

7.2. Objective 2

Assist Participating Members to establish when necessary, an adequate regulatory oversight framework for flight procedure implementation, using AFPP expertise.

7.2.2. Output 2.1

Establish dedicated assistance Programme (contents and schedule) for activity.

7.3. Objective 3

Assist Participating Members in developing when necessary, PBN OPS Approval for national air operators, using external expertise.

7.3.1. Output 3.1

Establish dedicated assistance Programme (contents and schedule) for activity.

7.3.3. Output 3.2

Define external expertise origin and source of funding for activity.

7.4. Objective 4

Obtain the full capability for AFPP for Phase II.

7.4.1. Output 4.1

Confirm secondment of Chief of Procedure Designers by Tanzania CAA.

7.4.2. Output 4.2

Obtain secondment of Chief of Operational Training by ASECNA.

7.4.3. Output 4.3

Obtain secondment of Data Specialist.

7.4.4. Output 4.4

Obtain secondment of additional experts as presented in section 3 of the present document.

7.4.5. Output 4.5

Obtain recruitment one administrative assistant and one IT specialist as presented in section 3 of the present document.

8. INPUTS

8.1. Host Administration

8.1.1. ASECNA as the Host Administration will provide the following:

- a) Office space and furniture equipment including maintenance and repairs if necessary as defined in Appendix 1;
- b) Information Technology equipment as defined in Appendix 1;
- c) Procedure design and charting equipment as defined in the Appendix 1;
- d) Suitably equipped rooms for African FPP activities held in Dakar, Senegal. The rooms will be located in African FPP Office, hosted in an ASECNA building or in any other building proposed by ASECNA;
- e) Use of vehicle for purposes of movements between Programme office and supporting ASECNA and ICAO facilities as needed;
- f) Operating and maintenance expenses as related to the office facility in a) including, electricity, water, internet connection, local and international phone connections, cleaning and office security; and
- g) Secondment of the Chief of Operational Training;

8.2. Participating Members

8.2.1. Participating Members will provide the following:

- a) Seconded personnel;
- b) Support the AFPP by contributing expertise or resources, to the extent practicable taking into account the needs of the AFPP;
- c) Authorize release to the AFPP of aeronautical data from third parties, including AIP and electronic terrain and obstacle data, as well as appropriate topographic mapping data and charts pertaining to their State/Organization for the purposes of the Programme, in particular for the design of instrument flight procedures and for quality assurance assistance;
- d) Bear the expenses of duty travel of AFPP staff as required supporting AFPP activities in their States/Organization.
- e) Complete all remaining necessary steps to publish instrument flight procedures developed wholly or partly within the AFPP framework as public procedures in their State Aeronautical Information Publication.

8.3. Active Members

8.3.1. Active Members will provide the following:

- a) Annual contributions covering the cost of the Programme, as indicated in the annual budget of the Programme;
- b) Participation in the meetings of the Steering Committee as Participating Member with the right to vote. In the case of regional organizations, the Active Member has a number of votes equal to the number of African Member States it represents and has to manage with its Members States for the vote.

8.4. ICAO

8.4.1. ICAO will provide the following:

- a) Personnel: Administration of the contracts of project personnel (programme manager, consultants and locally recruited support staff), according to ICAO's applicable policies, practices, procedures and rules;
- b) Mission travel of ICAO Secretariat staff for monitoring purposes and steering committee meetings;
- c) Administrative and other services for the handling of the Programme;
- d) Financial account management and budgetary control of the Programme; and
- e) Technical support to the Programme experts in the performance of their duties and undertake monitoring missions;
- f) ICAO to provide project funds to ASECNA for payment of allowances to secondees.

9. RISKS, MITIGATION MEASURES AND PREREQUISITES

9.1. Risks and Risk Levels

| Risks | Risk Level |
|--|----------------|
| a) Delays in secondment of experts from Host Administration | Low |
| b) Delays in transfer of funds to ICAO | Medium to High |
| c) Delays in secondment of experts from PM/Donors | Medium to High |
| d) Delays in identification of suitably qualified candidates for positions | Medium to High |

9.2. Risk Mitigation Measures

It may be considered that low level in risk is acceptable and does not need any mitigation measure.

Considering the medium to high level for delays in:

- a) Transfer of funds to ICAO could be mitigated by follow up;
- b) Secondment from PM/Donors, the African FPP activity could be difficult to be organized when the secondment is late. The African FPP activity supposed to be provided by the missing seconded expert would be replaced by another activity that AFPP is in capacity to provide. This action could mitigate the risk to an acceptable low level;
- c) Identification of suitably qualified candidates for Procedure Design, Data, and IT positions. Help could be provided by AFPP to PM for identification of candidates as a mitigation measure to risk level. This mitigation could reduce risk to medium level which is not acceptable. The AFPP activity supposed to be provided by the missing seconded expert would be replaced by another activity that AFPP is in capacity to provide. This action could mitigate the risk to an acceptable low level;

In any case, mitigation measure could consist of creation of external incomes by the AFPP providing charged activity. This action could mitigate the risk level to an acceptable low level but could not concern all risks.

9.3. Pre-requisites

- a) Programme Document would be signed by a minimum of 10 States as Active Members before the start of the Phase II of the Programme to ensure funding for the Annual Budget and permits the African FPP to provide activity and training;
- b) Facilities and equipment available for AFPP activities, as detailed in 8.1.

10. PROGRAMME WORK PLAN

The Programme work plan for 2019, is provided in Appendix 3.

11. PROGRAMME BUDGET

The revised Programme budget is provided in Appendix 4.

APPENDIX 1

INTERNATIONAL CIVIL AVIATION ORGANIZATION

TECHNICAL COOPERATION PROGRAMME

AFPP OFFICE REQUIREMENTS

This Appendix presents the Office requirements for the AFPP in the San Marco building. It will be amended for requirements for the final building.

| AFPP staff | |
|----------------------------|---|
| | <ul style="list-style-type: none"> • Manager • Chief of Procedure Designers/ Instructor / Procedure designer • Chief of Operational Training / Instructor / Procedure designer • Data Specialist • 2 Procedure Designers / Instructors • 1 Administrative Assistant • 1 Information Technology (IT) Specialist |
| Office space | |
| 1 room | • Manager |
| 1 room | • Chief of Procedure Design |
| 1 room | • Chief of Operational Training |
| 1 room | • Data Specialist |
| 2rooms | • 2 procedure designers |
| 1 room | • Administrative Assistant |
| 1 room | • Room for design |
| 1 room | • Classroom (30 seats) |
| 1 room | • Technical room for IT Specialist |
| 1 room | • Photocopy room |
| 1 room | • Archives room |
| 1 room | • Meeting room (20 seats) |
| 1 room | • Waiting room |
| 1 room | • Designing room (for 5 drawing tables) |
| 1 room | • Meeting room (50 seats) |
| Furniture equipment | |
| Manager | <ul style="list-style-type: none"> • Desk and chair • Storage/File cabinet • Book case • Monitor for conferences |

| | |
|---------------------|--|
| Offices | <ul style="list-style-type: none"> • Standard furniture for all offices Desk, chair, storage/file cabinet, book case – per person |
| Classrooms/ room | <ul style="list-style-type: none"> • Adequate space for 35 students • White boards • Video projector • Student tables and chairs |
| Designing room | <ul style="list-style-type: none"> • 5 drawing tables 5 small tables for laptops and documents |
| Meeting room | <ul style="list-style-type: none"> • Adequate equipment for 20 persons • Video projector |

| IT equipment | |
|---------------------|--|
| | <ul style="list-style-type: none"> • Secure Wi-Fi Internet connexion • Desk-top Phone with international services (one each for Manager/Chiefs/Assistant) • One desk-top phone for Procedure Designer Office • One desk-top phone for Instructor Office • Mobile phone (Manager) and 1 mobile phone for Office (for external missions) • Manager and Chief of Operational Training: <ul style="list-style-type: none"> ✓ Laptop computer each ✓ Office computer equipment (monitor 19") ✓ or Laptop computer docking station to replace office computer central unit • Chief of Procedure Designers and Procedure Designers <ul style="list-style-type: none"> ✓ Laptop computer each ✓ Office computer equipment (2 monitors 32") • Data Specialist <ul style="list-style-type: none"> ✓ Laptop computer ✓ Office computer equipment (monitor 19") • Assistant <ul style="list-style-type: none"> ✓ Office desk-top computer equipment (monitor 19") • External storage disks • 6 desktop multi-functional colour copiers/scanners/printers • 1 high volume multi-functional colour copier/scanner/printer (Assistant) • Computer Data Projector |

| Procedure Design and charting equipment | |
|--|--|
| Offices | <ul style="list-style-type: none"> • Maps Storage cabinet • Maps • Ao scanner • Ao printer • Professional GPS • Laser clisimeter |
| Classroom | <ul style="list-style-type: none"> • Computer Data Projector • Supplies for training sessions : set squares, protractors, compasses, rulers and pocket calculators |
| Software | <ul style="list-style-type: none"> • 6 COREL DRAW licenses or any other charting softwares |

APPENDIX 2-1

INTERNATIONAL CIVIL AVIATION ORGANIZATION

TECHNICAL COOPERATION PROGRAMME

JOB DESCRIPTION

Programme : African Flight Procedure Programme (AFPP);
Duty Station : Dakar, Senegal
Post Title : African Flight Procedure Programme Manager
Starting date : 8 February 2019
Duration : Initially 12 months, with the possibility of extension

Qualification Requirements:

- Advanced university degree in business administration or public administration or equivalent management and business experience;
- At least 10 years operational experience (pilot or Air Traffic Controller) with a good understanding of instrument flight procedure design process. A working knowledge of the Ops Approval and Airspace Design processes is highly desirable;
- Knowledge in aeronautical data quality and trajectories' publication;
- At least 5 years aviation management experience;
- Knowledge of the ICAO GANP and ASBUs, as well as the Performance-based Navigation (PBN) concept, objectives and supporting ICAO provisions and guidance;
- Ability to work and coordinate with civil aviation officials at all levels, as well as industry, regional and sub-regional groups, to accomplish the goals of the Programme;
- Ability to successfully lead major projects under a team structure; Experience in team management with the ability to foster and maintain harmonious, positive working relationships in a multi-national environment; and
- Oral and written command of the French and English Languages.

Major Duties and Responsibilities:

Under the direction of the Regional Director of the Western and Central African Office, for technical and operational matters, and in cooperation with ASECNA, the national counterparts and other Programme personnel;

- Work with ICAO, ASECNA and the Participating Members on creation of the FPP Office and commencement of operations, including establishment of office capability and processes;
- Be responsible for all aspects of the operation and management of the Flight Procedure Programme to include program coordination functions, personnel resourcing and training, office software and automation implementation, work plans, travel, and budget;
- Coordinate, develop and provide specific support activities as follows:
 - a) Training and support for local airspace and procedure designers;
 - b) The design and implementation of Instrument flight procedures for those PM without procedure design capability;
 - c) Training about regulatory processes to approve procedures (including PBN procedures)
 - d) Training about validation and quality assurance process;
 - e) PBN training for ATC and ATM staff; and
 - f) Training and support on operational approval for aircraft operators.

- Perform frequent coordination at all levels with ICAO Head Office, regional offices, other FPP offices, sub-regional groups, International Organizations and States on issues related to FPP operations;
 - Foster positive relationships and cooperation among assigned staff, international experts, seconded officers and CAA officers;
 - Identify, and develop Programme resources;
 - Report on a regular basis to the Director, Air Navigation Bureau on the progress of the FPP to include:
 - a) Programme Status (Interim or Full Operational Capability, status of resources, budget, etc.);
 - b) Accomplishments (since last report);
 - c) Objectives for the next reporting period; and
 - d) Other (new requirements, concerns, issues, etc.).
 - Perform other related duties as required.
-

APPENDIX 2-2

INTERNATIONAL CIVIL AVIATION ORGANIZATION TECHNICAL COOPERATION PROGRAMME

JOB DESCRIPTION

| | |
|----------------------|---|
| Programme | : African Flight Procedure Programme (AFPP) |
| Duty Station | : Dakar, Senegal |
| Post Title | : Chief of Procedure Designers |
| Starting date | : 8 February 2019 |
| Duration | : Initially 12 months with possibility of extension |

Qualification Requirements:

- Significant aviation experience as an Air Traffic Controller or a pilot or other demonstrated equivalences;
- Significant experience as an Instrument Flight Procedure Design specialist with extensive knowledge of ICAO PANS-OPS (Doc 8168) and ICAO PBN (Doc 9613) requirements;
- Training and Experience as an Instrument Flight Procedure Design Instructor for ICAO PANS-OPS (Doc 8168) courses with thorough understanding of teaching techniques and assessment methods;
- Thorough understanding of Flight Procedure Design Quality Assurance (Doc 9906) requirements and its implementation;
- Training and experience using Flight Procedure Design automation systems for flight procedure design, preferably GéoTITAN;
- Training and experience as an Instrument Flight Procedure Design Instructor for ICAO PANS-OPS (Doc 8168) courses is preferable; and
- Experience of working with CAAs, preferably in the Africa Region.

Major Duties and Responsibilities:

Under the direction of the AFPP Manager:

- Maintain training/qualification files on all procedure designers;
- Review and provide oversight of procedure design conducted by the AFPP;
- Approve all procedure designs by the AFPP designers;
- Develop annual and daily work schedule for the AFPP procedure designers;
- In coordination with Chief of Operational Training , develop annual airspace and procedure design training program (including on-site and off-site training), in concert with the AFPP annual objectives;
- In coordination with Chief of Operational Training, arrange and schedule airspace and procedure design training for instructors;
- In coordination with Chief of Operational Training, determine annual airspace and procedure design training budget;
- Review mission travel requests for AFPP procedure designers; and
- Perform other related duties as assigned by the AFPP Manager.

APPENDIX 2-3

INTERNATIONAL CIVIL AVIATION ORGANIZATION
TECHNICAL COOPERATION PROGRAMME

JOB DESCRIPTION

| | |
|----------------------|---|
| Programme | : African Flight Procedure Programme (AFPP) |
| Duty Station | : Dakar, Senegal |
| Post Title | : Chief of Operational Training |
| Starting date | : 8 February 2019 |
| Duration | : Initially 12 months with possibility of extension |

Qualifications Requirements:

The training domain concerns ATC, ATM and CAA staff, and aircraft operators.

The qualifications and experience requirements of Chief of Operational Training in African FPP are:

- Significant aviation experience as an Air Traffic Controller or a pilot or other demonstrated equivalences;
- Experience as Instrument Flight Procedure Design specialist with knowledge of ICAO PANS-OPS (Doc 8168) and ICAO PBN (Doc 9613) requirements;
- Training and experience as an Instructor for courses with thorough understanding of teaching techniques and assessment methods;
- Thorough understanding of Flight Procedure Design Quality Assurance (Doc 9906) requirements and its implementation; and
- Experience of working with CAAs, preferably in the Africa Region.

Major Duties and Responsibilities:

Under the direction of the AFPP Manager:

- Maintain training files on all instructors;
 - Monitor performance of all instructors;
 - In coordination with Chief of Procedure Design, develop annual training program (including on-site and off-site training), in concert with the AFPP annual objectives;
 - In coordination with Chief of Procedure Design, arrange and schedule training for instructors, as required;
 - In coordination with Chief of Procedure Design, determine annual training budget;
 - Review mission travel requests for AFPP instructors; and
 - Perform other related duties as assigned by the AFPP Manager.
-

APPENDIX 2-4

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
TECHNICAL COOPERATION PROGRAMME**

JOB DESCRIPTION

Programme : African Flight Procedure Programme (AFPP)
Duty Station : Dakar, Senegal
Post Title : Procedure Designer
Starting date : 8 February 2019
Duration : Initially 12 months with possibility of extension

Qualifications and experience:

- Satisfactory completion of formal PANS-OPS course(s) to cover the conventional and PBN procedure design criteria;
- Experience in the development of IFPs for conventional and PBN procedures;
- Understanding of Flight Procedure Design Quality Assurance (Doc 9906) requirements and its implementation;
- Experience using Flight Procedure Design automation systems for flight procedure design is preferable, preferably GéoTITAN; and
- Experience as an Instrument Flight Procedure Design Instructor for ICAO PANS-OPS (Doc 8168) courses is also preferable.

Major Duties and Responsibilities:

Under the direction of the AFPP Manager:

- Design instrument procedures as tasked by Chief of Procedure Designer;
 - Conduct Quality Assurance of procedures; and
 - Perform other related duties as assigned by the Chief of Procedure Designer.
-

APPENDIX 2-5

INTERNATIONAL CIVIL AVIATION ORGANIZATION

TECHNICAL COOPERATION PROGRAMME

JOB DESCRIPTION

| | |
|----------------------|---|
| Programme | : African Flight Procedure Programme (AFPP) |
| Duty Station | : Dakar, Senegal |
| Post Title | : Instructor |
| Starting date | : 8 February 2019 |
| Duration | : Initially 12 months with possibility of extension |

Qualifications and experience:

- Significant aviation experience as an Air Traffic Controller or a pilot or demonstrated equivalences;
- Significant experience as Instrument Flight Procedure Design specialist with extensive knowledge of ICAO PANS-OPS (Doc 8168) and ICAO PBN (Doc 9613) requirements;
- Significant experience as an Airspace Design specialist with knowledge of ICAO USE OF PBN IN AIRSPACE DESIGN (Doc 9992);
- Training and Experience as an Instrument Flight Procedure Design Instructor for ICAO PANS-OPS (Doc 8168) courses with thorough understanding of teaching techniques and assessment methods; and
- Thorough understanding of Flight Procedure Design Quality Assurance (Doc 9906) requirements and its implementation.

Major Duties and Responsibilities:

Under the direction of the AFPP Manager:

- Train instrument procedure designers as tasked by the Chief of Procedure Designers;
 - Conduct instrument airspace and procedure design courses;
 - Conduct others training courses tasked by Chief of Operational Training;
 - Perform other related duties as assigned by the Chief of Procedure Design and the Chief of Operational Training.
-

APPENDIX 2-6

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
TECHNICAL COOPERATION PROGRAMME**

JOB DESCRIPTION

Programme : African Flight Procedure Programme (AFPP)
Duty Station : Dakar, Senegal
Post Title : Data Specialist
Starting date : 8 February 2019
Duration : Initially 12 months with possibility of extension

Qualifications and experience:

- Significant experience in aeronautical data management;
- Knowledge of ICAO PANS-OPS (Doc 8168) and ICAO PBN (Doc 9613) data requirements;
- Thorough understanding of Flight Procedure Design Quality Assurance (Doc 9906) requirements and its implementation;
- Training and experience using Flight Procedure Design automation systems for flight procedure design, preferably GéoTITAN and
- Experience of working with CAAs, preferably in the Africa Region.

Major Duties and Responsibilities:

Under the direction of the AFPP Manager:

- Establish and update AFPP data base of aeronautical data to support procedure design;
 - Acquire and store obstacle data to support procedure design; and
 - Perform other related duties as assigned by the AFPP Manager
-

APPENDIX 2-7

INTERNATIONAL CIVIL AVIATION ORGANIZATION

TECHNICAL COOPERATION PROGRAMME

JOB DESCRIPTION

Programme : African Flight Procedure Programme (AFPP)
Duty Station : Dakar, Senegal
Post Title : Administrative Assistant
Starting date : 8 February 2019
Duration : Initially 12 months with possibility of extension

Qualifications and experience:

- Strong computer skills ;
- Fluent reading, writing and speaking of English and French;
- Ability to take follow-up action;
- Ability to work cooperatively and collaboratively with team members;
- Sense of confidentiality and
- Sense of planning and communication, internal and external to the AFPP.

Major Duties and Responsibilities:

Under the direction of the AFPP Manager:

- Management of the secretariat of the AFPP;
 - Processing of incoming and outgoing documents;
 - Prepare, distribute and disseminate correspondence, working and information papers;
 - Provide administrative support to the Manager and the team members for preparation of material for documentation;
 - Documentation filing and archiving;
 - Documentation distribution and dissemination;
 - Management of confidentiality;
 - Filter telephone calls and re-direct callers to the appropriate member team;
 - Provide support to visitors;
 - Coordinate travel organization in collaboration with ICAO WACAF and ASECNA;
 - Provide logistical support and coordination for events organized by the FPP in Dakar and out of the duty station; and
 - Perform other related administrative duties as assigned by the AFPP Manager.
-

APPENDIX 2-8

INTERNATIONAL CIVIL AVIATION ORGANIZATION

TECHNICAL COOPERATION PROGRAMME

JOB DESCRIPTION

Programme : African Flight Procedure Programme (AFPP)
Duty Station : Dakar, Senegal
Post Title : Information Technology (IT) Specialist
Starting date : 8 February 2019
Duration : Initially 12 months with possibility of extension

Qualifications and experience:

- Advanced experience working in Information Technology System;
- Strong computer skills;
- Good writing and speaking abilities in English and French;
- Ability to take follow-up action;
- Sense of confidentiality and
- Ability to work and communicate collaboratively with team members and external experts to the AFPP.

Major Duties and Responsibilities:

Under the direction of the AFPP Manager:

- Management of the FPP intranet network of the African FPP;
 - Management of access to others networks related to the FPP activity;
 - Management and prioritization of data network;
 - Implementation and maintenance of computers and software related to the FPP activity;
 - Training provided to FPP experts for newly installed or updated products and systems related to FPP activity;
 - Coordinated actions with the FPP designers for the management of the aeronautical data base;
 - Coordinated actions with concerned ICAO and ASECNA services for access to their information network in relation with FPP defined activities;
 - Management of communication systems for teleconferences and videoconferences;
 - The Information Technology Specialist should be responsible in collaboration with the Manager and ICAO WACAF ICT for developing and maintaining FPP website that allow effective communication to take place across the FPP stakeholders;
 - Dissemination of Internal newsletters and external communications outside the FPP office. Useful information for FPP stakeholders may also be posted on FPP website; and
 - Perform other related duties as assigned by the AFPP Manager.
-

APPENDIX 3

INTERNATIONAL CIVIL AVIATION ORGANIZATION TECHNICAL COOPERATION PROGRAMME

WORK PLAN 2019

1. AFRICAN FPP OBJECTIVES FOR YEAR 2019

- 1.1 Year 2019 will be an important year for the African Flight Procedure Programme (AFPP) as first year of Phase II. The purpose of the Programme Phase II is to provide opportunity to use the training activities and services proposed by the Programme for African Member States/Organizations in continuity of Phase I.
- 1.2 In order to propose a variety of training activities and services to meet the needs of Member States/Organizations needs according to the ICAO Resolutions A37-11 and A38-7, ASBU B0-65 (APTA) and the Global Aviation Safety Plan, the 2019 African FPP Work Programme is composed of workshops, training courses and support activities. Development and consolidation of National PBN Implementation Plan, workshops on conventional and PBN flight procedures implementation process including validation and regulatory approval, on PBN OPS Approval process, and training sessions for flight procedures designers as well as PBN flight procedures design have to be considered as essential to improve or start PBN implementation in States/Organizations s.
- 1.3 These activities will allow the PM to expedite or to make the first steps for implementing PBN flight procedures in the Region.
- 1.4 The AFPP Objectives for 2019 are as follows;
 - Commence AFPP Phase II operations on (date to be determined);
 - Conduct 5 Training activities; and
 - Conduct 3 Project-orientated implementation support activities.

2. AFRICAN FPP TRAINING ACTIVITIES FOR 2019

2.1 Conventional Flight Procedure Design Course– English – 20 days – May

- 2.1.1. **Description:** The course is based on ICAO PANS-OPS and aims to support PM in developing their conventional flight procedures and basic procedure design capability by providing fundamental knowledge regarding procedure design. The instruction consists of lecturing, exercises, progress tests and examinations.
- 2.1.2. At the end of the course, each student will be individually assessed for successfully acquiring the required competencies, and the outcome of the assessment will then be reported to each student and his/her agency.
 - Instructor – AFPP;
 - Material – AFPP;
 - Facility – To be notified;
 - Funding – AFPP Budget.

2.2 PBN Flight Procedure Design Courses – English – 20 days – November

- 2.2.1. **Description:** The course aimed to support States/Administrations in developing their PBN procedure design capacity and to support ICAO's global PBN implementation goals as indicated in the ICAO 2010 and 2013 Assembly Resolutions. The course is follow-on of the conventional Flight Procedure Design Course.

2.2.2. At the end of the course, each student will be individually assessed for successfully acquiring the required competencies, and the outcome of the assessment will then be reported to each student and his/her agency.

2.2.3. The course is open to qualified procedure designers who have successfully completed PANS-OPS Initial Course either at the African FPP or other institutions.

- Instructor – AFPP;
- Material – AFPP;
- Facility – To be notified;
- Funding – AFPP Budget.

2.3 PBN OPS Approval Workshop – English – 5 days - June

2.3.1. **Description:** The course is based on ICAO Doc 9997 and conducts to support States in developing their operational approval capability for approving PBN operations and air operators in obtaining PBN OPS approvals. The purpose of the course is to provide experienced flight inspectors, flight operations regulators and air operators' personnel with a comprehensive understanding of the requirements for PBN operational approval. The instruction consists of lecturing and study cases.

2.3.2. The course is open to qualified and experienced flight inspectors, regulators and air operator personnel involved in PBN flight operations.

- Instructor – ICAO Headquarters;
- Material – ANB;
- Facility – To be notified;
- Funding – ICAO Headquarters and AFPP Budget.

2.4 PANS-OPS Flight Procedure Design Course for CAAs – English – 20 days – May

2.4.1. **Description:** The course is based on ICAO PANS-OPS and aims to support States in developing their conventional flight procedures and basic procedure design capability by providing fundamental knowledge regarding procedure design. The instruction consists of lecturing and exercises.

- Instructor – AFPP;
- Material – AFPP;
- Facility – To be notified;
- Funding – AFPP Budget.

2.5 PBN Airspace Design Workshop – English – 5 days – April

2.5.1. **Description:** The course is based on ICAO Airspace design manual (Doc. 9992) and relevant documents (Doc. 9993 and 9931). The purpose of the workshop is to assist African States in developing their capabilities for airspace design, Continuous Descent Operations (CDO) and Continuous Climb Operations (CCO) and aims to support States in complying with users and ASBU requirement by providing fundamental advanced knowledge regarding CCO/CDO practical trajectories and Airspace design. The instruction consists of lecturing and study cases.

2.5.2. At the end of the course, each student will be able to understand airspace design theory and acquired enough competencies to better organize his airspace and design practical CCO/CDO trajectories.

- Instructor – Headquarter or partnership;
- Material – AFPP;
- Facility – To be notified;
- Funding – AFPP Budget.

2.6 Quality assurance Workshop – English – 5 days – September

2.6.1 **Description:** The course is based on ICAO Quality assurance manual for instrument flight procedure and aims to support States to understand the quality process for instrument flight procedures design and implementation in order to assist them for oversight and regulatory approval. The instruction consists of lecturing and study cases.

2.6.2. At the end of the course, each student will be able to understand the quality process in instrument flight procedure (IFP) design, roles and responsibilities of each stakeholder and how to oversee or approve an IFP.

- Instructor – AFPP/Headquarter of partnership;
- Material – AFPP;
- Facility – To be notified;
- Funding – AFPP Budget.

2.8 Instrument Flight Procedure Design OJT – English or French – 4 to 5 weeks minimum

2.7.1. **Description:** The OJT is organized on request of a States/Organization. OJT is a mandatory step in the quality assurance manual after the initial training (or sometimes following an advanced training) for those whose purpose is to reinforce formal training and support the achievement of competency standards.

2.7.2. At the end of the course, each student will be individually assessed for successfully acquiring the required competencies, and the outcome of the assessment will then be reported to each student and his/her agency.

- Instructor – Headquarter or partnership;
- Material – AFPP;
- Facility – AFPP office or on site;
- Funding – AFPP and State/Organization Budget.

3. AFRICAN FPP PROJECT-ORIENTED IMPLEMENTATION SUPPORT FOR 2019

3.1 Conventional or PBN Flight Procedures Implementation Projects: Botswana (continuation of Phase I Project), Côte d'Ivoire, Guinea, Liberia, Zimbabwe, Gambia, Cabo Verde.

3.1.1. **Description:** Implementation of PBN and/or conventional flight procedures at different airports of AFPP Member States/Organizations in accordance to quality assurance for flight procedures implementation requirement described in ICAO Doc.9906.

- Expert- Qualified procedure designers from AFPP;
- Funding by concerned PM;
- Facility –Dakar and On Site;
- Conditions – Concerned States/Organizations agreed to include national experts in project development to start training on flight procedures implementation process.

3.3 Assistance for development of National PBN Implementation Plan Djibouti, Central African Republic, Zambia

Description: Assistance conducted to assist concerned Member States to develop their National PBN Implementation Plan.

- Expert - Qualified expert from AFPP;
- Funding by concerned States;
- Facility –Dakar and On Site;
- Conditions – Concerned States agreed to include national experts in activity provision to improve knowledge on PBN implementation.

3.4 OJT for PANS OPS flight procedures designers trained by the AFPP, Cabo Verde, Niger

Description: PANS OPS OJT conducted for flight procedures designers from AFPP Member s and trained by the AFPP to obtain flight procedures designer qualification.

- Expert–AFPP PANS OPS Instructor;
 - Funding by concerned Member;
 - Facility –Dakar and On Site;
 - Conditions – Request from concerned Members or agreement to include trained flight procedures designer as AFPP member team for AFPP flight procedures design project.
-

APPENDIX 4

INTERNATIONAL CIVIL AVIATION ORGANIZATION
 TECHNICAL COOPERATION PROGRAMME
 REVISED PROGRAMME BUDGET

PROJECT BUDGET COVERING MISA CONTRIBUTION
 (IN UNITED STATES DOLLARS)

COUNTRY:
 PROJECT NO:
 PROJECT TITLE:
 WORK ORDER:
 VERSION:

REGIONAL PROJECT
 RAF14801
 AFRICAN FLIGHT PROCEDURE PROGRAMME (AFPP)
 RAF14801-01
 3

| | TOTAL | | 2015 - 2017 | | 2018 | | 2019 | | 2020 | | 2021 | | | |
|--|--|------------------------------|-------------|-----------|------|---------|------|---------|--------|---------|--------|---------|--------|---------|
| | w/m | \$ | w/m | \$ | w/m | \$ | w/m | \$ | w/m | \$ | w/m | \$ | | |
| PROJECT PERSONNEL | | | | | | | | | | | | | | |
| INTERNATIONAL PROFESSIONAL POSTS | | | | | | | | | | | | | | |
| B500A | AFRICAN FLIGHT PROCEDURE PROGRAMME MANAGER | 56409 / MR. FREDERIC LEGRAND | 11.0 | 114 517 | 6.0 | 59 517 | 5.0 | 55 000 | | | | | | |
| B500A | AFRICAN FLIGHT PROCEDURE PROGRAMME MANAGER | 50227/ MR. ALEXANDRE DAMIBA | 36.0 | 546 000 | | | 2.8 | 75 500 | 12.0 | 163 300 | 12.0 | 161 900 | | |
| B554A | CHIEF OF PROCEDURE DESIGNERS | | 29.0 | 87 000 | | | | 8.0 | 24 000 | 12.0 | 36 000 | 9.0 | 27 000 | |
| B554A | CHIEF OF OPERATIONAL TRAINING | | 29.0 | 58 000 | | | | 8.0 | 16 000 | 12.0 | 24 000 | 9.0 | 18 000 | |
| B554A | PROCEDURE DESIGNER | | 11.0 | 11 000 | | | | 4.0 | 4 000 | 4.0 | 4 000 | 3.0 | 3 000 | |
| B554A | INSTRUCTOR | | 11.0 | 11 000 | | | | 4.0 | 4 000 | 4.0 | 4 000 | 3.0 | 3 000 | |
| B554A | DATA SPECIALIST | | 11.0 | 11 000 | | | | 4.0 | 4 000 | 4.0 | 4 000 | 3.0 | 3 000 | |
| SUB-TOTAL (INTERNATIONAL PROFESSIONAL POSTS) | | | 138.0 | 838 517 | 6.0 | 59 517 | 7.8 | 130 500 | 40.0 | 215 300 | 48.0 | 233 900 | 36.2 | 199 300 |
| LOCAL STAFF | | | | | | | | | | | | | | |
| B551A | ADMINISTRATIVE ASSISTANT | | 28.0 | 70 000 | | | | 7.0 | 17 500 | 12.0 | 30 000 | 9.0 | 22 500 | |
| SUB-TOTAL (LOCAL STAFF) | | | 28.0 | 70 000 | | | | 7.0 | 17 500 | 12.0 | 30 000 | 9.0 | 22 500 | |
| B814A | INTERNATIONAL TRAVEL | | | 608 148 | | 268 148 | | 65 000 | | 100 000 | | 100 000 | | 75 000 |
| NATIONAL PROFESSIONAL | | | | | | | | | | | | | | |
| B552A | INFORMATION TECHNOLOGY (IT) SPECIALIST | | 28.0 | 70 000 | | | | 7.0 | 17 500 | 12.0 | 30 000 | 9.0 | 22 500 | |
| SUB-TOTAL (NATIONAL PROFESSIONAL) | | | 28.0 | 70 000 | | | | 7.0 | 17 500 | 12.0 | 30 000 | 9.0 | 22 500 | |
| TOTAL (PROJECT PERSONNEL) | | | | 1 586 665 | | 327 665 | | 195 500 | | 350 300 | | 393 900 | | 319 300 |
| SUB-CONTRACTS | | | | | | | | | | | | | | |
| B803A | SUB-CONTRACT - LOCAL | | | 175 327 | | 2 027 | | 77 000 | | 35 000 | | 35 000 | | 26 300 |
| TOTAL (SUB-CONTRACTS) | | | | 175 327 | | 2 027 | | 77 000 | | 35 000 | | 35 000 | | 26 300 |
| EQUIPMENT | | | | | | | | | | | | | | |
| B751B | NON-EXPENDABLE EQUIPMENT - INTERNATIONAL | | | 82 835 | | 81 135 | | 300 | | 500 | | 500 | | 400 |
| B751C | OPERATION & MAINT. OF EQUIPMENT | | | 1 147 | | 1 147 | | | | | | | | |
| TOTAL (EQUIPMENT) | | | | 83 982 | | 82 282 | | 300 | | 500 | | 500 | | 400 |
| MISCELLANEOUS | | | | | | | | | | | | | | |
| B807M | MISCELLANEOUS EXPENSES | | | 51 251 | | 16 251 | | 5 900 | | 9 700 | | 10 700 | | 8 700 |
| B754A | OVERHEAD CHARGES | | | 190 440 | | 43 440 | | 27 900 | | 39 600 | | 44 000 | | 35 500 |
| TOTAL (MISCELLANEOUS) | | | | 241 691 | | 59 691 | | 33 800 | | 49 300 | | 54 700 | | 44 200 |
| PROJECT TOTAL | | | | 2 087 665 | | 471 665 | | 306 600 | | 435 100 | | 484 100 | | 390 200 |

The budget includes the expenditures from 2015 to 2018 and estimates for the period from 2019 to 2021. The estimates are determined as described in the below.

| Item | Description |
|---|---|
| African Flight Procedure Programme Manager (Mr Legrand) | The amounts and durations reflect the actual expenditures and the contract dates for the period covered under project RAF14801. Prior to 1 July 2017, Mr Legrand was seconded to ICAO from France, at no cost to the project. |
| African Flight Procedure Programme Manager (Mr Damiba) | The amounts and durations are based on the incumbent's contract. The amounts include salary and applicable entitlements. |

| Item | Description |
|--|--|
| Chief of Procedure Designers Chief of Operational Training Procedure Designer Instructor Data Specialist | The start date is set to 1 May 2019, based on the assumption that secondees are recruited with effect from this date. The durations for each year are estimates, the amounts based on the monthly allowances approved by the steering committee during its 4th meeting in Abidjan, Côte d'Ivoire from 20 to 21 April 2017, cf. SC/4-Dec07 (Seconded Permanent experts during Phase II) and SC/4-Dec08 (Seconded experts during Phase II) |
| Administrative Assistant | The start date is set to 1 June 2019, based on the assumption that the position is filled with effect from this date. The annual cost is an initial estimate based on the discussions during 4th meeting of the steering committee. The end date is aligned with the end date of the African Flight Procedure Programme Manager's contract. |
| International Travel | The amount for 2019 is based on the preliminary work programme. The amounts for the following years are based on the assumption that expenditures for mission travel will be the same as in 2019; the amount for 2021 is prorated to be aligned with the end date of the African Flight Procedure Programme Manager's contract. |
| Information Technology (IT) Specialist | Same as for Administrative Assistant. |
| Sub-contract | The amounts the annual maintenance of automated procedure design software, plus a buffer for other subcontracts such as for services related to the delivery of training and workshops. The amount for 2021 is prorated to reflect the end date of the African Flight Procedure Programme Manager's contract. |
| Non-expendable equipment | The item includes cost estimates for stationery, training material, etc. based on the expenditures for previous years ² . |
| Miscellaneous expenses | The item covers expenses such as banking charges or mailing charges and corresponds to about 2 per cent of the previous budget items. |
| Overhead charges | ICAO's administrative fees of 10 per cent of the expenditures. |

— END —

² The significantly higher expenditures in in 2015 and 2016 are due to: the procurement of a training package for procedures for air navigation services – aircraft operations (PANS-OPS); and the temporary use of fund RAF14801 for the procurement of licenses for automated procedure design software, which were subsequently transferred to RAF14801SF together with the contributions earmarked for this purpose.