



*International Civil Aviation Organization*

**MID Region Flight Procedure Programme Steering Committee**

**Third Meeting (MID FPP SC/3)**  
*(Virtual, 25 - 26 January 2023)*

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**Agenda Item 3: MID FPP Work Plan for the Year 2023**

**MID FPP WORK PLAN FOR THE YEAR 2023**

*(Presented by the Manager MID FPP)*

**SUMMARY**

This paper presents the proposed Work Plan for the Year 2023 for discussion and approval of the MID FPP Steering Committee meeting.

Action by the meeting is at paragraph 3.

**REFERENCES**

- Report of the Second Meeting of the MID Region Flight Procedure Programme Steering Committee (MID FPP SC/2)

**1. INTRODUCTION**

1.1 During Y2022, the Work Plan was focussing on (1) capacity building activities and (2) provision of services based on the current capabilities/resources available within the Programme considering the contribution of Donor States and Partners.

1.2 MID FPP Steering Committee (SC/2) meeting (Abu Dhabi, 15-16 June 2022) encouraged the MID FPP Manager to explore further activities that will support the MID States and generate revenue. Furthermore, the meeting noted that for the Work Plan Y2023 and beyond, the activities should be customized to the needs of the member States.

**2. DISCUSSION**

2.1 The **Year 2** (2023) of the Programme Phase I will be a crucial year for the MID FPP in fulfilling its main objectives of providing support for States with training activities and consultancy/assistance services in order for them to overcome the challenges associated with PBN implementation.

2.2 In general, the proposed Work Plan 2023 activities is developed considering (1) use/management of the accomplished pool of resources following States nominations and (2) training experience and lessons learned as delivered by the Programme during the Year 2022.

2.3 The MID FPP activities for 2023 will be mainly concentrated on the specific requests for airspace/procedure design projects as collected from the States as well as on customized syllabus of PANS OPS training courses following the demands from the MID Participating States.

2.4 However, the assistance for procedure design to States and organizations with no flight procedure capability will be further carried out and, in this respect, the Programme remains open to receiving new requests pending its resource availability and timely interaction with other (running) projects.

2.5 The MID FPP training portfolio for 2023 will be containing a PBN 3-course package (Database Coding, Interdependency Design-Coding-Charting and Oversight & Ops Approval) as well as custom-made/off-the-shelf PANS OPS Design (module-based) initial trainings respectively; we will be also offering a PANS OPS class addressed to the CAA Oversight inspectors (online or onsite provision).

2.6 It is to be noted that MID FPP trainings program for 2023 is relying upon the support of (1) DGAC France and ENAC within the frame of the Technical Agreement (TA) signed with ICAO, (2) the fruitful inter-collaboration with the regional APAC and Africa FPP respectively and, finally, on the sustenance of United for Aviation Technology Services (UATS) company as Donor organization to the Programme.

2.7 Consequently, the MID FPP Objectives for Year 2023 are as follows:

- To consolidate MID FPP operations as a “building block” upon Year 1 groundwork.
- To focus on customer-oriented projects and consultancy for IFPs and Airspace Design to States.
- To develop and strengthen MID States capability for Procedure/Airspace Design by organizing tailored/off-the-shelf PANS OPS Training courses.
- To augment and sustain MID States knowledge on PBN concept by organizing a 3-courses package.
- To support MID States expertise by conducting educational or “case study” PBN-related workshops.

2.8 In view of the foregoing, the following Draft Conclusion is proposed:

***DRAFT CONCLUSION 3/X: MID FPP WORK PLAN FOR THE YEAR 2023***

*That, the MID FPP Work Plan for the year 2023 at Appendix A is endorsed.*

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) discuss and review the proposed MID FPP Work Plan for the year 2023 as outlined in the **Appendix A** to this Working Paper; and
- b) endorse the Draft Conclusion at para. 2.8.

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## “MID FPP Work Plan for the Year 2023”

### MID FPP Objectives for Year 2

The **Year 2** (2023) of the Programme Phase I will be a crucial year for the MID Region Flight Procedures Programme (MIDFPP). The purpose of the Program is to provide opportunity to use the available training activities and services proposed by the Program for Participating States.

The Work Plan Y2022 was focused on (1) capacity building activities and (2) provision of services based on the current capabilities/resources available within the Programme considering the contribution of Donor States and Partners.

In general, the proposed Work Plan 2023 activities are based on (1) use/management of the accomplished pool of resources following States nominations and (2) training experience and lessons learned as delivered by the Programme during the Year 2022.

MID FPP Steering Committee (SC/2) meeting (Abu Dhabi, 15-16 June 2022) encouraged the MID FPP Manager to explore further activities that will support the MID States and generate revenue. Furthermore, the meeting noted that for the Work Plan Y2023 and beyond, the activities should be customized to the needs of the member States.

Therefore, MID FPP activities for 2023 will be mainly concentrated on the specific requests (airspace/procedure design projects & consultancy service) as collected from the States as well as customized syllabus of PANS OPS trainings courses following the demands from the MID Participating States.

However, the assistance for procedure design to States and organizations with no flight procedure capability will be carried out and, in this respect, the Programme remains open to receiving new requests pending its resource availability and timely interaction with other (running) projects.

Besides the customer-oriented projects addressing the needs of Participating States while complying with the ICAO Resolution A37-11 and ASBU APTA Thread/Elements, the MID FPP work program is composed of workshops and a variety of training classes.

The MID FPP training portfolio for 2023 will be containing a PBN 3-course package (Database Coding, Interdependency Design-Coding-Charting and Oversight & Ops Approval) as well as custom-made/off-the-shelf PANS OPS Design (module-based) initial training; we will be also offering a PANS OPS for CAA Oversight courses (online or onsite provision).

To be mentioned that following on the States high interest on the topic and on the “success story” achievement by MID FPP, the PBN training package is intended to be provided during two (2) sessions i.e., Spring and Fall periods, respectively.

It is to be noted with appreciation that MID FPP trainings program for 2023 is relying upon the robust support of (1) DGAC France and ENAC within the frame of the Technical Agreement (TA) signed with ICAO, (2) the fruitful inter-collaboration with the regional APAC and Africa FPP respectively and, finally, on the sustenance of United for Aviation Technology Services (UATS) company as Donor organization to the Programme.

Consequently, the MID FPP Objectives for Year 2023 are as follows:

- To consolidate MID FPP operations as a “building block” upon Year 1 groundwork.
- To focus on customer-oriented projects and consultancy for IFPs and Airspace Design to States.
- To develop and strengthen MID States capability for Procedure/Airspace Design by organizing tailored/off-the-shelf PANS OPS Training courses.
- To augment and sustain MID States knowledge on PBN concept by organizing a 3-courses package.

- To support MID States expertise by conducting educational or “case study” PBN-related workshops.

### **Description of MID FPP Activities for 2023**

#### **1) PBN Navigation Database (Path Terminator, coding rules) Course, (4 days). [Q1 & Q4]**

**Description:** Reference to and use of the Navigation System Database Standard, ARINC 424, the Path and Termination (P/T) concept has become the “industry norm” for path description in Instrument Procedure definition. As a result, it is imperative that the procedure designers understand these rules and provide a design intent that reflects those requirements.

Primarily, the course is addressed to procedure designers and airspace planning experts. However, since PBN concept is a cross-domain model, the course material is also referring to AIS & Charting experts involved in the State AIP production.

Following on the States high interest on the topic and on the “success story” achievement by MID FPP last year, the PBN training package is intended to be provided during two (2) sessions in Spring and Fall of the year respectively.

- Instructor: MID FPP Manager
- Sponsorship: NIL
- Material: MID FPP
- Facility: Physical (GCAA SZC Training Center, Abu Dhabi)

#### **2) Inter-relationship PBN Design – Coding – Chart/AIP Course, (4 days) [Q1 & Q4]**

**Description:** The course is not simply intended to familiarize the participants with ARINC 424 standard and its database coding requirements, but additionally, it will be bringing the inter-disciplinary overview on each database element, where applicable, perceived from design, charting and/or AIS/AIP perspective. The course content is including rich number of examples illustrating the inter-dependency between the three domains. The course is addressed to procedure designers/airspace planning professionals as well as to AIS & Charting experts involved in the State AIP production.

Following on the States high interest on the topic and on the “success story” achievement by MID FPP last year, the PBN training package is intended to be provided during two (2) sessions in Spring and Fall of the year, respectively.

- Instructor: MID FPP Manager
- Sponsorship: NIL
- Material: MID FPP
- Facility: Physical (GCAA SZC Training Center, Abu Dhabi)

#### **3) PBN Oversight & Ops Approval Course (4 days), [Q1 & Q4]**

**Description:** The course is based on ICAO Doc. 9997 “*PBN Operational Approval Manual*” and conducts to support States in developing their operational approval capability for approving PBN operations and air operators in obtaining PBN OPS approvals.

This training introduces PBN and its purpose and the way PBN specifications are introduced in the oversight process. It focuses on the quality assurance processes associated to procedure design activities and the enforcement of PBN operations by aircraft operators and the associated oversight.

The purpose of the course is to provide experienced flight operations inspectors, personnel from CAA (or National Supervisory Authority), procedure designers and air operators’ staff with a comprehensive understanding of the requirements for PBN operational approval. The course is open to participants involved in PBN flight operations.

Following on the States high interest on the topic and on the “success story” achievement by MID FPP last year, the PBN training package is intended to be provided during two (2) sessions in Spring and Fall of the year, respectively.

- Instructor: MIDFPP Manager

- Sponsorship: NIL
- Material: MID FPP
- Facility: Physical (GCAA SZC Training Center, Abu Dhabi)

**4) ICAO PANS OPS Module I Course: Foundation skills/SIDs, (2 weeks). [March/Q1]**

**Description:** The course is based on ICAO PANS-OPS criteria and aims to support States/Administrations in developing their basic procedure design capability by providing fundamental knowledge regarding procedure design criteria. This initial course is focused on all basic concepts (conventional & PBN concept) as well as conventional and PBN departures. The instruction consists of exercises, in-class exercise, or homework.

This module task exercise is focused on the Conventional SID as well as PBN SIDs.

At the end of the course, each participant will be individually assessed, and the outcome of the assessment will then be reported to each participant and his/her agency.

- Instructor: APAC FPP Expert
- Sponsorship: NIL
- Material: APAC FPP
- Facility: Online

**5) ICAO PANS OPS Module II Course: 2D Approach, NPA & RNP APCH, (2 weeks). [May/Q2]**

**Description:** The course aimed to support States/Administrations in developing their PBN procedure design capacity. This course is considered as the second step of a thorough training to design IFR procedure. The module covers conventional and PBN 2D type of approach design, non-precision approach design as well as holdings/en-route criteria. For Module II, the task exercise is a VOR approach & RNP APCH (2D) procedures and a holding.

At the end of the course, each student will be individually assessed, and the outcome of the assessment will then be reported to each student and his/her agency.

The course is open to participants who have successfully completed the first module of Instrument Procedure Design course: “Foundation skills/SIDs “.

- Instructor: APAC FPP Expert
- Sponsorship: NIL
- Material: APAC FPP
- Facility: Online

**6) ICAO PANSOPS Module III Course: Conventional and PBN 3D approach design, ILS, APV Baro-VNAV, SBAS/GBAS criteria (2 weeks). [July/Q3]**

**Description:** The course aimed to support States/Administrations in developing their PBN procedure design capacity. This course is considered as the third step of a thorough training to design IFR procedures.

For Module III, the practical task consists of an ILS and Baro-VNAV procedures. Furthermore, a Coding table and a sample chart must be made by the trainees.

At the end of the course, each student will be individually assessed, and the outcome of the assessment will then be reported to each student and his/her agency.

The course is open to participants who have successfully completed the 1<sup>st</sup> and 2<sup>nd</sup> modules of the Instrument Procedure Design Course.

- Instructor: APAC FPP Expert
- Sponsorship: NIL
- Material: APAC FPP
- Facility: Onsite/Location TBD

**7) ICAO DOC. 9905: RNP AR Refresher Course (5 days). [Sep/Q3]**

**Description:** The course aimed to support States/Administrations in developing their PBN procedure design capacity. The course covers underlying principles and procedure design criteria of RNP AR Approach as laid down in ICAO Design Manual Doc.9905. The knowledge of criteria is presented to trainees followed by practical exercise for the implementation of the criteria. The last two days of the course will include discussion on industry examples of RNP AR design.

The course is open to participants who have successfully completed, at least, the training module covering design criteria of PBN Baro-VNAV and/or it is addressed to senior design experts as refresher course.

- Instructor: APAC FPP Expert
- Sponsorship: NIL
- Material: APAC FPP
- Facility: Online

**8) PANS OPS Module II Advanced Course: PBN NPA, PA and DEPs (4 weeks). [April/May/Q2]**

**Description:** The course aimed to support States/Administrations in developing their PBN procedure design capacity. This course is considered as the advanced step of a thorough training to design IFR procedures.

The instruction consists of lecturing, exercises, progress tests and examinations. The practical task consists of an PA (LPV/SBAS CAT I) and Baro-VNAV (LNAV/VNAV) type of procedures.

The course is open to participants who have completed the PANS-OPS flight procedure design initial training course including, as a minimum, the Conventional NPA, PA and DEPs procedures.

- Instructor: Africa FPP Expert
- Sponsorship: Africa FPP.
- Material: Africa FPP
- Facility: Physical/Dakar (Senegal) – *Three (3) seats available for MID FPP attendees*

**9) PANS OPS Training for CAA Inspectors Course (5 days). [July/Q3]**

**Description:** The course aimed to support States/Administrations in strengthening its Oversight Inspectors knowledge and expertise with the guidance for quality assurance in the elements of procedure design, the requirements and process steps of Instrument Flight Procedure Design (IFPD) in general and particularly of the core process of Flight Procedure Design (FPD) as laid down in ICAO Doc. 9905, Vol. I “*Flight Procedure Design Quality Assurance System*”. It also provides familiarity and awareness towards the IFP supporting processes (software validation, training, etc.) and the upstream and downstream processes that trigger or are triggered by the FPD and IFP processes, e.g., data origination, AIS, database coding.

The course is open primarily to State CAA inspectors as well as to Lead/Chief Design personnel of the IFPD organizations.

- Instructor: Africa FPP Expert
- Sponsorship: Africa FPP.
- Material: Africa FPP
- Facility: Physical/Windhoek (Namibia) – *No seats limitation for MID FPP attendees*

**10) PBN Implementation Workshop (5 days), [Date TBD]**

**Description:** This PBN Implementation Workshop is intended to assist States/Administrations in developing and/or enhancing their national PBN Implementation Plan and move forward with actual PBN implementation. The Workshop will also provide updated information regarding global PBN activities and how PBN can be an enabler for enhancing ATM operations. During the workshop, the participants with assistance from MID FPP and ICAO MID facilitators will develop a list of short-term action items aiming to develop and/or enhance their PBN Implementation Plan and advance their on-going PBN implementations

and deployments. The list of action items along with relevant recommendations will then be submitted to their States Authorities.

Participants to this workshop should be representatives from all aviation stakeholders with an interest in PBN implementation.

- Facilitator: MIDFPP, ICAO MID, IATA, partner organizations.
- Sponsorship: Industry/Stakeholders
- Material: FPP programs
- Facility: Physical (TBD)

#### **11) PBN Airspace Design Workshop (2 days), [6-7 Dec/Q4]**

**Description:** This PBN Airspace Design Workshop is intended as an introduction to the subject of PBN airspace design and its process steps. The workshop is designed to highlight the fact that any PBN (airspace and/or procedures) implementation is about teamwork and is a multi-disciplined task. The workshop is based around an airspace change and aims to highlight to everyone that an implementation is just like a puzzle i.e., no one holds all the pieces.

- Facilitator: MID FPP, ICAO MID, ACAO, IATA.
- Sponsorship: State
- Material: ICAO MID
- Facility: Doha/Qatar

#### **12) PANS OPS Oversight for CAA Inspectors/Executives Workshop (5 days), [Sep/Q3]**

**Description:** This PBN OPS Oversight for CAAs personnel and Executives workshop is intended to address PANS-OPS related Safety Significant Concerns (SSCs) following the ICAO USOAP audits. The SSCs can be prevented with a sound knowledge of the ICAO relevant provisions and PANS-OPS related Professional Qualifications (PQ). The aim of the workshop is to review all these issues and explore what can be done to avoid them and enhance the flight safety.

- Facilitator: Africa FPP, ICAO WACAF office.
- Sponsorship: Africa FPP
- Material: Africa FPP
- Facility: Physical (Dakar or Nairobi, TBD) - *No seats limitation for MID FPP attendees.*

#### **13) Airspace Design for Terminal Area Optimization (10 days), [6 – 17 March/Q1]**

**Description:** The participant will learn the basics of Airspace Design (Conventional & PBN mixed environment) in order to be able to be efficiently part of an airspace design project team. The objective of this course is to provide theoretical background in the design of airspace, particularly in lower airspace and terminal areas. A practical workshop during the second week will allow participants to take part in the different steps of the design of a new TMA on a real Airspace and Traffic data. The targeted audience are ATS managers, supervisors, controllers, and technicians involved in airspace and procedure design.

- Facilitator: ENAC France.
- Sponsorship for MID FPP: ENAC France
- Material: ENAC France
- Facility: Physical (Toulouse, France) – Two seats for MID FPP Pool of Experts.

**Provision of specific projects and consultancy for IFPs/Airspace design to States.**

The MID FPP will provide support to member States through consultancy service (based on specific requests coming from States). These services are including a broad spectrum of support provided thru the Programme resources/experts already in place as follows:

**(1) IFPD project for three (3) IAPs (ILS & VORs) at Kirkuk Intl Apt (ORKK)**

**Description:** Conducting procedure design/procedure re-assessment for ILS rwy 31 and new VOR rwy 13 & 31, ground validation, support of safety activities, creation of draft charts & associated tabular description, flight validation package support, project management.

**Note:** The Terrain and Obstacles data survey as well as the Flight Validation activities are envisaged to be provided thru United ATS company.

- Facilitator: MID FPP Pool of Experts (PoE), UATS (*refer to Note above*)
- Sponsorship/Project Owner: Kirkuk Intl Airport
- Duration/Date: According to the Project Plan/Q1 (tentatively)
- Facility: Remote. Kick off meeting onsite (Manager MID FPP)

**(2) IFPD project for re-validation of existing IFPs at Bahrain Intl Apt (OBBI)**

**Description:** Bahrain CAA is considering having MID FPP as the best option for the scheduled re-validation of the existing Instrument Terminal procedures planned for Q3 in 2023.

- Facilitator: MID FPP Pool of Experts (PoE)
- Sponsorship/Project Owner: Bahrain Civil Aviation Authority
- Duration/Date: According to the Project Plan/Q3 (tentatively)
- Facility: Remote.

**(3) Consultancy project for Free Routes Sudan Airspace**

**Description:** Sudan CAA is planning to implement Free Routes Airspace (FRA) above FL 410 within its Flight Information Region (FIR). The Sudan Authority has requested MID FPP consultancy and technical expertise in assistance during the project implementation. MID FPP should involve one State in the region that is conducting similar efforts for FRA realization in order to have lessons-shared exchanges.

- Facilitator: MID FPP Pool of Experts (PoE)
- Sponsorship/Project Owner: Sudan Civil Aviation Authority
- Duration/Date: According to the Project Plan/TBD
- Facility: Remote.

**(4) Consultancy Risk Assessment Conventional IAPs at Sulaymaniyah Apt (ORSU)**

**Description:** Sulaymaniyah Intl Airport (ORSU) requested to MID FPP to conduct a Risk Assessment for their new instrument procedures consisting of Conventional SIDs, STARs, ILS CAT I and VOR/DME for both runway 13 and 31. The initial procedure design was created by the airport experts under supervisor of an external experienced designer. The procedures were also successfully flight validated thru a commercial specialized service provider.

- Facilitator: MID FPP Pool of Experts (PoE)
- Sponsorship/Project Owner: Sulaymaniyah Intl Airport (ORSU)
- Duration/Date: According to the Project Plan/TBD
- Facility: Remote.

**(5) PANS OPS tailored courses**

**Description:** There are two (2) training request from Iraq and Oman respectively for a customized PANS OPS training course. The tailoring is considering the course syllabus and duration as adapted to the specific needs.

Facilitator: MID FPP Pool of Experts (PoE)

Sponsorship/Project Owner: Sulaymaniyah Intl Airport (ORSU)

Duration/Date: According to the Project Plan/TBD

Facility: Remote.

## MID FPP Work Plan 2023

Activity Type	Subject	Location*	Duration	Date	Remarks
Trainings PBN Package	PBN Navigation Database Course	SZC	4 days	28 Feb-3 March	May be two (2) sessions
	Inter-relationship PBN Design – Coding – Chart/AIP Course	SZC	4 days	7-10 March	May be two (2) sessions
	PBN Oversight & Ops Approval Course	SZC	4 days	14-17 March	May be two (2) sessions
Trainings PANS OPS	PANS OPS Initial training (tailored syllabus Iraq)	TBD	6 weeks	24 April (tentatively)	Iraq plans ten (10) participants. Start date: after Ramadan
	PANS OPS advanced training (tailored syllabus Oman)	TBD	3 weeks	5-23 June (tentatively)	Oman plans nine (9) participants
	PANS OPS Module I: Foundation skills/SIDs	Online	2 weeks	6-17 March	APAC FPP training class
	PANS OPS Module II: 2D Approach, NPA & RNP APCH	Online	2 weeks	8-19 May	APAC FPP training class
	PANS OPS Module III: Conventional & PBN 3D approach, ILS, APV Baro-VNAV, SBAS/GBAS criteria	Onsite/TBD	2 weeks	17-28 July	APAC FPP training class
	Doc. 9905 RNP AR APCH	Online	1 week	18-22 Sep	APAC FPP training class
	PANS OPS Module II Advanced: PBN NPA, PA and DEPs	Dakar/Senegal	20 days	23 Apr-11 May	Africa FPP training class (3 seats available for MID FPP)
	PANS OPS Training for CAA Inspectors	Windhoek/Namibia	5 days	23-27 Jul	Africa FPP training class, no seats limitation for MID FPP
Workshops	PANS OPS Oversight for CAA Inspectors/Executives	Dakar/Senegal or Nairobi/Kenya	5 days	23-27 Sep	Africa FPP organized, no seats limitation for MID FPP
	PBN Airspace Design	Doha/Qatar	2 days	6-7 Dec	MID FPP, ICAO MID, ACAO, IATA
	PBN Implementation	TBD	5 days	TBD	MID FPP, ICAO MID, IATA
	Airspace Design for Terminal Area Optimization	Toulouse/France	10 days	6-17 March	Two (2) seats for MID FPP PoE
Customer-oriented Projects	IFPD three (3) IAPs (ILS & VORs) at Kirkuk Intl Apt (ORKK)	MID FPP PoE	Project Plan	Q1	Project inception dependent of TOD survey
	Re-validation existing IFPs at Bahrain Intl Apt (OBBI)	MID FPP PoE	Project Plan	Q3	
	Consultancy for Free Routes Sudan Airspace	MID FPP PoE	Project Plan	TBD	
	Consultancy Risk Assessment Conventional IAPs at Sulaymaniyah Apt (ORSU)	MID FPP PoE	Project Plan	TBD	

\* **SZC** = GCAA Sheikh Zayed Air Navigation Training Center (MID FPP premises) \* **PoE** = Pool of Experts