



BANJUL ACCORD GROUP ACCIDENT
INVESTIGATION AGENCY (BAGAIA)

Banjul Accord Group Accident Investigation Agency (BAGAIA)

Annual EASA and European Civil Aviation Safety Investigation Authorities (CASIA)

meeting in Cologne, 9-10 May 2023.

Engr. Charles Irikefe Erhueh,
BAGAIA Commissioner



- BAGAIA Participation in this Annual Investigation Meeting
- This Meeting supports a forum that provides topics of common interest to strengthen the European Corporation.

Expectations from this Forum:

- It is no doubt that BAGAIA will gain experience from the effective sharing of information, feedbacks & views on recent and significant safety investigations with the shared goals of enhancing the European Air Safety. All these will be a take home for BAGAIA which the experience gathered will in turn be used in improving the Investigation activities in the BAG Region.



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VISION: To be the most efficient regional accident and incident investigation organization in the world



MISSION: To assist the Banjul Accord Group (BAG) Member States in the conduct of an independent investigation of aircraft accidents and serious incidents in compliance with international standards



There are many activities executed by BAGAIA as follows:

- **Cape Verde:** Cape Verde organized a bird-safe workshop to create awareness of the birds' activities and the danger they pose around the vicinity of the airport. BAGAIA was in attendance among other aviation stakeholders to witness the events and their importance to aviation safety.
- Some of the important areas discussed at the workshop were;
 - Why do birds hang around the airports
 - what to do about birds in the airport vicinity
 - Why is wildlife control on or around the airport important
 - How to control the existence of birds & wildlife around the airport.



- **Ghana/Sierra Leone:** BAGAIA was able to assist institutionalization/establishment of the Independent Accident Investigation Bureau in Ghana (assist in the provision of relevant documents to draw the ACT of establishment), Sierra Leone, and Commissioners and Commission Members were appointed by the various government of both countries.
- **Gambia:** BAGAIA emphasized ensuring the implementation of their independent Accident Investigation Bureau in the Gambia, that even though the ACT 2019 has been enacted, BAGAIA is currently helping to ensure its implementation.
- **Guinea:** BAGAIA visited Guinea and was not able to have a fruitful meeting with the Minister as he was engaged with other matters at that time. Currently, there have been some changes with the government resulting in a New Director General of CAA and there is a need for a mission to Guinea with regards to AIG set up in the country.



- **Liberia:** BAGAIA's visit to Liberia came to fruition in September 2021 and the Minister of Transport was welcoming in establishing the Independent AAIB within a given time-frame in July 2022 based on signed resolutions. Within such time, the appointment of Mr. Jero Mends-Cole as the Commissioner for AAIB-Liberia has been made.
- **Nigeria:** Nigeria is currently building a new facility that will house the AIB-N headquarter, training school, and material science laboratory in regard to the new multimodal accident investigation body called Nigerian Safety Investigation Bureau (NSIB). This training school will assist member states and the world in the area of training concerning aircraft accidents and incident investigation.
- Nigeria has currently acquired an Accident Mobile site i.e. an emergency mobile satellite that will help investigators to create a mobile office at the crash site. This equipment will assist in the spot analysis of evidence at the crash site and the download of the FDR & CVR.



- **Cabo Verde:** In Cabo Verde, were BAGAIA canvases for the building of accident investigation capacity for Instituto de Prevenção e Investigação de Acidentes Aeronáuticos e Marítimos (IPIAAM) Personnel where investigators can be drafted within to investigate aviation or maritime accident/incident. Whereby, BAGAIA seeks massive human capacity building in the region with an emphasis on new blood to learn from experienced personnel in both the Maritime and the Aviation sectors
- BAGAIA in collaboration with IPIAAM has successfully carried out world-class training in Basic Aircraft Accident Investigations with **26 participants** from, Cabo Verde, Guinea Conakry, Portugal, and Nigeria. The training was held from 17 to 25 May 2021 in Praia, Cabo Verde.



Aviation Safety Workshop: BAGAIA in cooperation with IPIAAM and the African Union (AU) in partnership with the European Union (EU) under the EU-Aviation Safety for Africa (EU-ASA) project to organize the Aviation Safety Workshop (11-12 April 2022) where we confirm the participation of about **65 participants** within and outside the region including the America and Europe.



- **BAGAIA has carried out two weeks – 80 hours of training on Accident Investigation**
- **Praia, Cape Verde – May 2013**
- **Accra, Ghana – June 2014**
- **Lagos, Nigeria – Nov 2015**
- **Abuja, Nigeria – Nov-Dec 2015**
- **Praia, Cape Verde – May 2021**

Also, carried out the BAGAIA Report Writing training in Lagos, Nigeria on January 2018; with 30 participants (4 countries)

Note.- Over 300 investigators are trained, ...however, needs Practical (on-the-job) training and experience



BAGAIA Safety Investigation Regulations 2021 (First Edition)

The first edition of BAGAIA Safety Investigation Regulations 2021 was approved and adopted by the BAGAIA Commission at its sixth commission meeting held in Banjul, The Gambia on 14th July 2021. BAGAIA Safety Regulations were developed by BAGAIA Technical Committee (TC1) in conjunction with European Union-Aviation Safety in Africa (EU-ASA) project.

BAGAIA Investigation Policies and Procedures Manual (BIPPM) First Edition

The first edition of the BAGAIA Investigation Policies and Procedures Manual, as developed by BAGAIA Technical Committee (TC2) in conjunction with European Union Aviation Safety in Africa (EU-ASA) project. The meeting held in Accra Ghana for this purpose was a success and this document was presented during the just concluded 7th BAGAIA Commission Meeting held 13th April – 15th April 2022, at Hilton Hotel, Cabo Verde.

This manual has since been effective on 20th April 2022.





BAGAIA Working Documents and Amendment to BAGAIA Agreement:

➤ The BAGAIA office is currently working on the organization's working documents that will be presented to the BAGAIA Commission Members for Approval. The working documents which will guide the activities and working principles of BAGAIA within the region are:

- The BAGAIA Strategic Workplan Plan
- The BAGAIA Staff Rules
- BAGAIA Policies & Procurement Plan
- BAGAIA Financial Regulations

➤ **BAGAIA Agreement Amendment:**

The Banjul Accord Group Accident Investigation Agency (BAGAIA) has taken another bold step towards making proposals for some amendments to its Agreement. This proposal shall be presented to the Council of Ministers through the BAG Secretariat for endorsement for amendment of the Agreement.

➤ **BAGAIA Documents Committees:**

The Banjul Accord Group Accident Investigation Agency (BAGAIA) resolved to institute of working document committee at the last second BAGAIA extraordinary meeting held on 8 June 2022. The Commission added that states should provide Lawyers and Finance personnel for the two committees so that they can review the working documents and revert back to Commission through the BAGAIA Commissioner. This is necessary as to ensure that no state is left behind in the process.

International & Stakeholders Relationship

International & Stakeholders Relationship:

✓ The Fifth International Accident Investigation Forum (IAI Forum/5)

(Singapore): The Banjul Accord Group Accident Investigation Agency (BAGIA) was invited to the fifth International Accident Investigation Forum held on 18th-20th May 2022 in Singapore. At this forum, the world's government investigation officials and experts discuss issues relating to organizations, infrastructure, and management of accident investigations.

✓ **The Seventh Edition of AFI Aviation Week:** Also BAGIA attended the seventh edition of AFI Aviation Week held in Nigeria from 16th-20th May 2022.

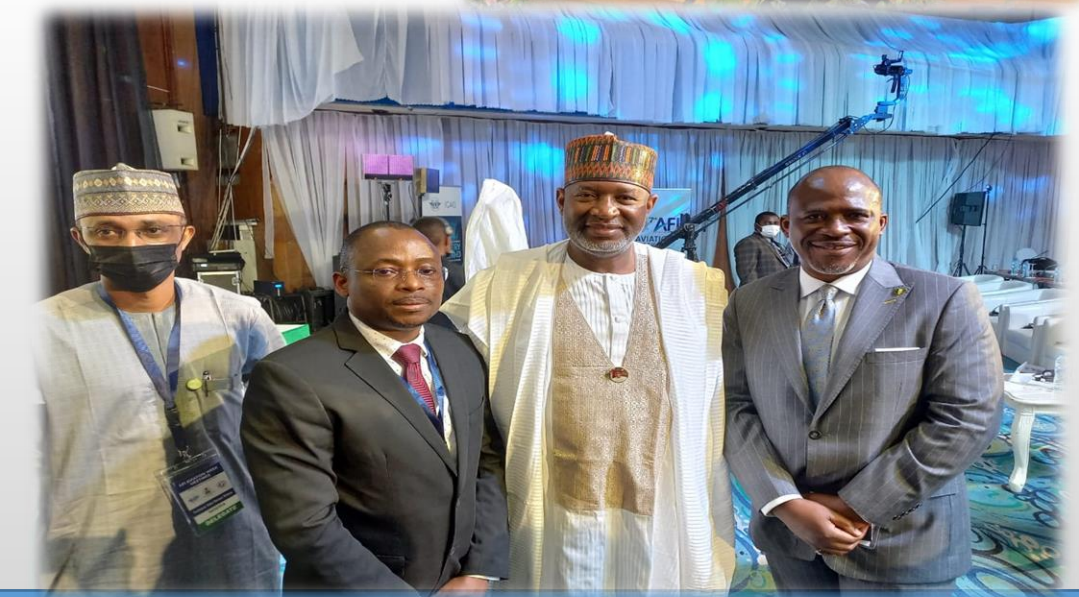
✓ **RASC/8 Steering Committee Meeting in Nairobi** from 29 to 30 August 2022

✓ **6th and 7th RAIOS CP Teleconference:** Both were held virtually in May 2022 and August 2022 respectively

✓ **African RSOO Platform Teleconference:** BAGIA has been part of this conference from time to time, the last one was the 4th Teleconference held virtually on 4 August 2022.

✓ **BAGASOO Visit BAGIA Headquarters in Praia:** Earlier this year on 16th February, BAGASOO made a courtesy visit to BAGIA Headquarters in Praia

✓ **BAGIA Courtesy Visit to BAGASOO Headquarters in Nigeria** was on 12th - 13th May 2022



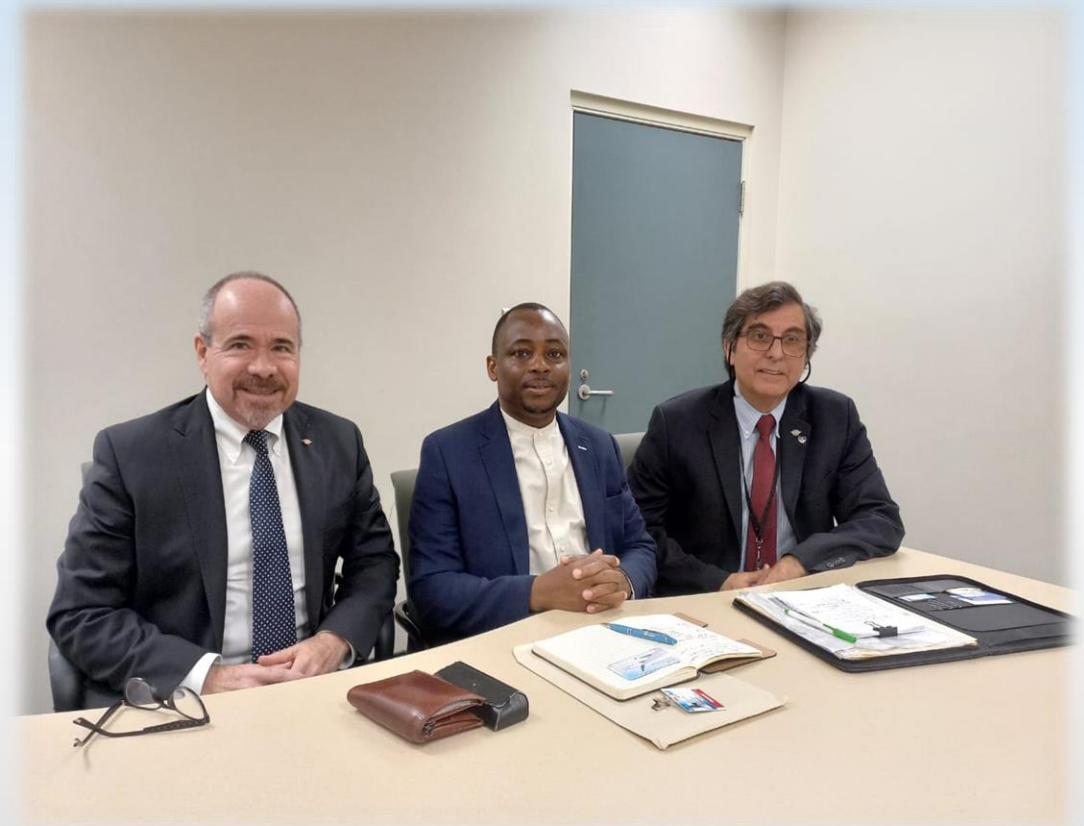
EU Expert Mission to BAGAI

✓ **Expert Mission:** The European union expert in person on Mr. Mario Colavita made a mission visit to the BAGAI Headquarters in Praia in April 2022 after the BAGAI Commission Meeting. During his visit, vital discussions were held with regard to the EU-ASA project and other collaborations with regard to BAGAI.



- **41st ICAO Assembly:**

- BAGAIA attended the 41st ICAO Assembly in Montreal, Canada. During Assembly Sessions, ICAO's complete work programme in the technical, economic, legal and technical cooperation fields is reviewed in detail.
- Assembly outcomes are then provided to the other bodies of ICAO and to its Member States in order to guide their continuing and future work, as prescribed in Article 49 of the [Convention on International Civil Aviation](#).



■ BAGAIA Mission to Cologne/Brussel:

- BAGAIA was granted the opportunity to send its delegation to Cologne to witness EASA Accident Investigation and bring back the experience to the Region. The EU-ASA safety in Aviation (EU-ASA) Project in Cologne captures lots of significant objectives which will be of great benefit to BAGAIA and the entire region.
- Few amongst lots of the important topics treated were:
 - ECCAIRS 2: the new software and related agreement with ICAO on its distribution
 - The role of EASA during safety investigations within or outside Europe
 - Overview of the internal processes relating to the reception of safety recommendation
 - Introduction of EASA and tasks of its two sections
 - ENCASIA Plenary Meeting Section and
 - BAGAIA was accorded the opportunity to introduce itself and tasks





■ **BAGAIA Working Paper Preparation**

BAGAIA just recently prepared a working paper to ICAO - WACAF & ESAF on the Title: **BAGAIA assistance to States In AFI-Region (2022)** to be presented at the Eight meeting of the African-Indian Regional Aviation Safety Group (RASG-AFI/8) 10th November 2022.

This working paper was presented to RASG-AFI to give their support so that the project will be realized by instituting Regional Accident Organization in AFI-Region using BAGAIA Model to harness deficiencies in the area of AIG.



NOTE: The activities of BAGAIA are flexible and can be rescheduled or adjusted to the current situation and will be executed going with the trend of things.

- BAGAIA Workshop/Training as per Work plan and sponsorship:
 1. Title of Workshop/Seminar: Flight Recorder Workshop - 'Recorders and Beyond'
Duration of Program: 2 days (14th November - 15th November 2022)
Number of participants: 30 – 50 persons (Anticipated for members and non-member states)
 2. Title of Workshop/Seminar: Workshop on the role of the Accident/Incident Investigation in the State Safety Programme (SSP)
Duration of Program: 3 days (16th November - 18th November 2022).



➤ 1st Edition of BAGAI Newsletter

The first edition of the BAGAI newsletter was published in February 2020 bringing to the limelight the activities of BAGAI and its member states.

➤ 2nd Edition of BAGAI Newsletter

The second edition (issue 002) of the BAGAI Newsletter was published in July 2022. This publication normally comprises all the activities within BAGAI and in extension to its member states.

BAGAI Newsletters



From back L-R: Mr. Herbert D.C. Jow Regional Finance & Administrative Manager-BAGASOO; Mr. Sulayman Jatta Ag. Deputy Director General Gambia CAA the Representative of the Head of BAG Secretariat; Mr. Christian Bechtold the Regional Officer, Technical Assistance & Air Transport - ICAO-WACAF; Mr. Ousmane Barry the Manager Navigation Services representative of Guinea Conakry Commission Member; Mr. Sulayman Jammeh the Corporate Manager Int. Relations GambiaCAA Representative from the BAG Secretariat; Mr. Mario Colavita the Safety Investigation Section Manager- EASA Expert, Representative of EU-ASA Project; Engr. Jorge Manuel Rodrigues the Director of Aeronautical IPIAAM; Mr. Rene Tavares the Regional Officer-Flight Safety- ICAO-WACAF; Front from L-R: Engr. Mario Margarito Gomes the Chairman Board of Directors-IPIAAM Cabo Verde; Engr. Akin Olatunji the Commissioner/CEO AIB-NIGERIA; Engr. Charles Iribio Erhuon the BAGAI Commissioner; Mr. Jose So Nogueira Consul of the Minister and Representative of the Minister of Transport & Tourism Cabo Verde; Mr. Prosper Zo'o Minto the Regional Director of ICAO-WACAF; Mr. Akwasi Agyeibi Prempeh the Commissioner AIB-Ghana all on the 7th BAGAI Commission Meeting held on 13-15 April, 2022 at the Hilton Hotel, Sal Island Cabo Verde

How UAVs can Aid Aircraft Accident Investigations in Africa

“To make an impact in aviation, aircraft accident investigations need to be independent, devoid of influence from airlines, states, aircraft manufacturers and others in the airline value chain; hence the reason funding is a key factor in ensuring the job is carried out with the utmost

How Funding can Aid Neutrality in Aircraft Accident Investigation

Despite the fact that accident investigation in most part of the world is seen as a social service of government, it is important for objectivity, how funding for this important endeavour is gotten.

According to the International Civil Aviation Authority (ICAO) Annex 13 the underlying objective of investigating aviation accidents is to prevent future



- The sixth meeting of the Aviation Stakeholders on the Implementation of the prioritized action plan for the operationalization of the Single African Air Transport Market (SAATM) was held at AFCAC Headquarters in Dakar, Senegal between 9-10 February 2023 and BAGAIA was much in attendance.
- The Single African Air Transport Market (SAATM) has to do with accelerating the full liberalization of the African Air Transport Market through the establishment of the single African Air Transport Market Pilot Implementation Project (SAATM-PIP)
- There were discussion and recommendation made on the way forward from presentation by stakeholders on implementation states of the joint prioritized action plan 2023.



- The fifth AFI-CIS Inspectors Induction & Refreshers Meeting was held virtually between 20-24 march 2023 .
- The areas covered during the workshop were;
 - a. Personnel licensing
 - b. Dangerous goods
 - c. SSP/SMS
 - d. Aircraft Accident Investigation
- BAGAIA was availed the opportunity to make presentation on the Aircraft Accident Investigation policy, processes and procedures for states.
- It worthy of note that there was also inauguration of expert working group at this event with also representatives in Aircraft Accident Investigation for the first time coming.



- Between 13 – 17 march, 2023, BAGAIA made assistance mission to Sierra Leone.
- The BAGAIA Strategic 1.0 states that; BAGAIA will assist member states in the establishment of an Investigation Authority that is independent of the state aviation authority and other entities that could interfere with the conduct or objectivity of an investigation.
- BAGAIA Strategic Objective 1.1: Mission to State.

The Mission to Sierra Leone was to assist the newly established Sierra Leone Aircraft Accident Investigation & Incident Bureau (SLAAIB) in preparation towards their upcoming ICAO Audit.

- Tasks carried out during this mission visit were; Main activities:

- a) Review of the primary Legislation SL-CARs (CE:1) and alongside its PQs, b) Review of the Operating Regulation SL-AAIB Regulations (CE:2) with respect to its PQs, c) Reviewing the SL-AAIB system and functions which included Drawing up an Organogram to meet up the requirement of an Investigation Authority, Credential Format for Investigators, Personnel Job descriptions, and Organizational chart,
- d) Qualification of Investigators was looked into, and BAGAIA also drew training plans for the organization,
- e) BAGAIA also reviewed SL-AAIB Training Manual to make necessary inputs while responding to the PQs,
- f) A Rule Making Procedure was drawn for the regulation committee, an MOU draft between SL-CAA & SL-AAIB was reviewed while a draft of the MOU of between SL-AAIB and the SL-Supreme was also done.
- g) Compliance Checklists were also treated.



➤ BAGAIA recently participated in a Symposium on the Future of Aviation safety and Aircraft Accident Investigation was held in Dubai, the United Arab Emirates 3 - 4 May 2023.

➤ BAGAIA's Presentation at the Symposium was centered on the:

Overview of BAGAIA - Regional [Aircraft Accident Investigation] Emerging Challenges & Opportunities(the use of cloud computing in accident investigation)

- ☐ Cloud Computing technology will enable data from aircraft to continue streaming to ground stations so if there is an incident or accident and the aircraft losses Flight Data Recorders(FDR) and Cockpit Voice Recorders(CVR).Investigators can draw these information streaming real time from the cloud
- ☐ In case the aircraft crashes and loses or suffers damages on its black box component and there is no recovered Flight Recorders during a crash, as most e-enabled aircraft send signals to the cloud, which such data can be retrieved by investigators for investigation purposes



- **Technical Proposal for Aviation Safety Investigation and Recommendation Solutions – Vimana –** AY Consulting (OPC) Pvt Ltd in India, and is supported by AFCAC.
- This solution will help in managing every investigation from start to completion, monitor who is responsible for every investigation, and to what stage it is at any given time.
- **Offerings of this Solution:**
 - Accident/incident notifications, Investigation Management, Evidence management, Dashboards for queries, Correspondence management, Inventory management, Integrated reports, Safety recommendations, Root cause analysis, and lastly augmented reality (AR), and artificial intelligence (AI) parts recognition.
 - The AR and AI will help investigators with their mobile app on their device at the accident site to help in the identification of parts while using their device camera.

NOTE: Member states have already indicated an interest in the Vimana Solutions for Accident investigation after the demo displayed by AY Consulting during the Sixth BAGAIA Commission Meeting



- **Membership Drive in BAGAI:**

- Expansion drive within the continent:
 - o How we can integrate more states into the BAGAI family and ensure already existing members show commitment financially too?
 - o The BAGAI Safety Investigation Regulations have made provisions for non-member state
- The 7th BAGAI Commission meeting has called for the review of the BAGAI Agreement in accordance with Article 20 of the Agreement.
 - o The legal team of BAGAI has worked on the Agreement, in cooperation with member states, and was presented at the 8th BAGAI Commission Meeting a Committee has been set up to come up with their report before the 9th BAGAI Commission Meeting in July 2023



Therefore, in summary, the importance of setting up BAGAIA as RAIO:

- Help in the achievement of the independence of aircraft accident and serious incident investigations;
- Duplication of efforts is eliminated;
- Achieving economies of scale; and
- Aircraft/Air Safety Investigators within the region gain experience quicker.



Cooperation/Partnership:

Local:

- BAGASOO

International:

- ICAO and its regional bodies
- Airbus
- Boeing
- African Union (AU) in partnership with the European Union (EU) under the EU-Aviation Safety for Africa (EU-ASA) project

Also, the RAIO-Cooperative Platform



Activity	Area(s) or Subject	Planned Date	Duration	Venue/State	Funding	Comment
Workshops/Seminars/Webinars						
BAGAIA Mission to EASA, Cologne (To witness EASA regional accident investigation and bring same to the BAG region)	AIG	AUG/SEP	7DAYS	Cologne	EU-ASA Project	Completed
The Role of Accident/Incident Investigation in SSP	AIG	TBD	5DAYS	Nigeria	Nigeria/EU-ASA Project	Completed
Flight Recorder Readout Workshop	AIG	TBD	5DAYS	Nigeria	Nigeria/EU-ASA Project	Completed
Management of Accident Investigation and benefits to States	AIG	TBD	5DAYS	Sierra Leone	Sierra Leone/EU-ASA Project	Not executed
Aviation Safety Workshop	AIG	11TH-12TH APRIL 2022	2DAYS	Cabo Verde	Cabo Verde/EU-ASA Project	Completed
EU Expert Mission to BAGAIA	AIG	7TH-10TH APRIL 2022	3DAYS	Cabo Verde	EU-ASA Project	Completed
7th BAGAIA Commission Meeting	AIG	APRIL 13TH-15TH 2022	3DAYS	Cabo Verde	Cabo Verde/EU-ASA Project	Completed



Activity	Area(s) or Subject	Planned Date	Duration	Venue/State	Funding	Comment
Workshops/Seminars/Webinars						
8th BAGIA Commission Meeting	AIG	NOV,2022	3DAYS	NIGERIA	Nigeria/EU-ASA Project	Completed
The Council of Ministers Meeting	AIG	NOV 2022	2DAYS	NIGERIA	TBD	Not Executed
The 41 st Session of ICAO Assembly	ALL	SEPT.2022	TBD	MONTREAL,CANADA	BAGIA	Completed
Technical Committee Meeting ,to develop BAGIA Training Manual for Investigators	AIG	TBD	14DAYS	TBD	TBD	
Technical Committee Meeting ,to develop BAGIA Accident/Incident Report Form	AIG	TBD	7DAYS	TBD	TBD	
Workshop on Banjul Accord Group Civil Aviation Safety Regulations (To discuss on the working principles of the document)	AIG	TBD	5DAYS	TBD	TBD	
Workshop on BAGIA Investigation Policies and Procedures Manual (BIPPM) (To discuss on the working principles of the document)	AIG	TBD	5DAYS	TBD	TBD	



The major challenge is the remittance of the yearly subscription by the Member States.

Another is the commitment to resolutions reached in Commission Meetings from the necessary partners responsible for its executions.

Nevertheless, there are opportunities...



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THANK YOU