INTERNATIONAL CIVIL AVIATION ORGANIZATION

First Meeting of the Africa - Indian Ocean Aviation System Planning and Implementation Group (AASPG/1)

Libreville, Gabon, 3 - 7 November 2025

Agenda Item 4: Implementation of safety and air navigation goals, targets and indicators, including priorities set in the Regional Aviation Safety and Air Navigation Plans

4.7. Other Aviation Safety and Air Navigation initiatives

Outcomes of the first meeting of the AFI ATS Events Analysis Group

(Presented by AEAG Secretariat)

SUMMARY
This paper presents the outcomes of the First Meeting of the AFI ATS Events Analysis Group (AEAG/1), held in Libreville, Gabon from 13 to 17 October 2025. It summarizes key discussions, technical findings, and recommendations formulated during the meeting and outlines the agreed roadmap for 2025–2026 to enhance regional ATS safety analysis and reporting capabilities. Action by the Meeting is at paragraph 3

Reference	APIRG/27 & RASG-AFI/10 Report
Strategic Objectives	A-Safety

1   INTRODUCTION

1.1 In accordance with Conclusion 6/04 of the Joint APIRG/27 and RASG-AFI/10 Meeting, the AFI ATS Events Analysis Group (AEAG) was established to revitalize the regional mechanism for the collection and analysis of ATS safety events.

1.2 The first meeting of AEAG (AEAG/1) was organized in Libreville, Gabon, under the leadership of the ICAO WACAF and ESAF Regional Offices and facilitated by the Regional Safety Oversight Organizations (RSOOs) naming AAMAC, BAGASOO, CASSOA and SASO, with the support of ANAC Gabon as host State.

1.3 The objective of the meeting was to review ATS events reported for 2023 and 2024, to identify trends and recurring issues, and to formulate data-driven recommendations for the enhancement of ATS safety in the AFI Region.

1.4   The AEAG serves as a cornerstone of the AFI Region's data-driven approach to safety management, enabling the identification of systemic safety issues and the formulation of region-wide, evidence-based mitigation strategies. By aligning its work with the goals of the AFI Regional Aviation Safety Plan (RASP) and the Global Aviation Safety Plan (GASP), AEAG provides AASPG and States with actionable intelligence to prioritize safety initiatives and resource allocation in support of the "No Country Left Behind" initiative.

2.   DISCUSSION

Participation and Opening

2.1 AEAG/1 brought together eighty-five (85) representatives from ICAO, RSOOs, States, ANSPs, Air Operators, and International Organizations.

Governance and Working Arrangements

2.2 AEAG operates under a light structure with a rotating chairmanship and a pool of Secretariat made of one focal point designated by each RSOO involved and coordinated by AAMAC.

2.3 A Steering Committee composed of ICAO and RSOOs is set to provide strategic guidance.

2.4 Three meeting formats: annual plenary (in-person or hybrid), biannual virtual reviews, and ad-hoc technical sessions.

2.5 The Confidentiality Charter and Terms of Reference for the AEAG Database were validated.

2.6 AEAG complements the work of AASPG. The Group's analyses and recommendations provide inputs to the AASPG decision-making process and inform performance-based safety oversight activities, thereby ensuring alignment between operational event analysis, regional planning, and strategic oversight.

Methodology and Analytical Framework

2.6 The meeting adopted a standardized methodology for the classification and analysis of ATS events based on taxonomy categories (ATS incidents, Inflight emergencies, Inflight contingencies, ATC contingencies).

2.7 The analysis cycle was structured around five steps: Data Collection → Validation → Analysis → Recommendation → Follow-up.

2.8 States and ANSPs committed to provide comprehensive datasets for 2024 and 2025 through their RSOOs before AEAG/2.

Preliminary Analysis of Events (2023–2024)

2.9 A total of 455 ATS-related events were collected, including 321 occurrences in 2023 and 134 in 2024, as submitted by States and ANSPs through their respective RSOOs. The dataset covered incidents and contingencies that occurred both in controlled airspace and at aerodromes within ten (10) Flight Information Regions (FIRs).

However, this downward trend in reported numbers should be interpreted cautiously, as it may also reflect variations in the completeness of reporting among States rather than a genuine reduction in occurrence frequency.

The distribution per FIR shows that the majority of records originated from the **FCCC, FMMM, GOOO** and **DRRR FIRs**, which together accounted for nearly 80 percent of the dataset. This pattern illustrates the active participation of these FIRs in the reporting process and highlights the need to promote consistent reporting across all participating States.

a) Distribution by Type of Filed Event

The most frequently reported occurrences in 2023 related to **wildlife management, equipment reliability, communication performance, and ATC procedural adherence**, with the following specific event types:

- **Bird strikes (38 events)** and **Wildlife hazards (17 events)** together accounting for **17 percent of all 2023 reports**;
- **QRF-Onboard malfunctions (33 events)** and **Facility-COM issues (33 events)** reflecting the growing number of **technical and communication reliability** concerns;
- **Go-around due to weather (17 events)**, **AIRPROX (13 events),** and **Procedure-ATC issues (11 events)**;
- **Loss of Separation (10 events)** and **Runway incursion (6 events)** events.

In 2024, the reporting pattern changed noticeably. Although the overall volume of reports declined, the proportion of **technical, aircraft, and system-related filings** increased:

- **Bird strikes (38 events)**, which remained the leading single event type, followed by
- **QRF-Onboard malfunctions (17 events)** and **System/Component Failures (SCF-NP/SCF-P, 18 events combined)**,
- **Procedure-ATC issues (6 events)** and **Runway excursions or incursions (4 events combined)**,
- Along with a notable presence of **AIRPROX (8 events)**; **Go-around due to weather (7 events)** and **unstable approaches (3 events)**, and **Loss of Separation (2 events).**

Overall, across both years, **eight event categories** accounted for over **75 percent of all filings**: **Bird strike, QRF-Onboard malfunction, AIRPROX, Loss of Separation, Facility-COM, Procedure-ATC issues, Go-around due to weather, and Wildlife hazard.** These event patterns provide context for understanding the underlying causal factors identified in the following analysis.

b) Probable Causes and Contributing Factors

The consolidated analysis of all sub-groups identified the following **main causal categories** affecting ATS events in 2023–2024:

- ❖ **ATC human performance** – Loss of situational awareness, excessive workload, and procedural misapplication were recurrent in AIRPROX, Loss of Separation, and Runway Incursion cases. These events were also linked to inadequate coordination between FIRs or sectors, combined sector operations or insufficient use of available communication tools (HF/VHF/CPDLC).
- ❖ **Communication system deficiencies** – Reports indicated radio-frequency interference, limited range, power outages, and onboard transceiver malfunctions. In several FIRs, ground/air communication unserviceability and inter-ACC coordination issues contributed to loss of separation.

❖ **Procedural non-compliance and miscommunication** – ATC/pilot readback-hearback errors, incorrect clearances, and inconsistent application of local procedures were observed, particularly in aerodrome and terminal environments.

❖ **Wildlife hazards** – Frequent bird and animal presence near runways, coupled with ineffective or irregular control measures, remained a major factor in runway excursions and rejected take-offs.

❖ **Technical and equipment failures** – System/Component Failures (power and non-power) including unreliable navigation, surveillance outages, and onboard equipment failures, accounted for a significant share of inflight contingencies.

❖ **Weather and environmental conditions** – Thunderstorms, heavy rain, and wind shear continued to trigger go-arounds, unstable approaches, and turbulence encounters, occasionally compounded by inadequate low-level wind-shear alert systems.

❖ **Operational constraints and airspace design** – Dynamic traffic levels, lack of sectorisation flexibility, and outdated Letters of Agreement were cited as structural contributors to several coordination-related events.

❖ **Data quality limitations** – Roughly one-fifth of the reports were incomplete or inconclusive, reflecting the absence of uniform investigation practices and limited implementation of just-culture reporting in some States.

c) Lessons Learned and Emerging Safety Trends (2023–2024)

From these observations, AEAG/1 derived several **key lessons and evolving safety trends** to guide regional safety improvements:

❖ **Reporting quality determines analytical value** – Fewer occurrences were registered in 2024 (134) compared with 2023 (321), indicating both potential operational improvements and uneven reporting practices. Enhancing reporting culture and ensuring uniform investigation standards are essential.

❖ **Communication and coordination require renewed focus** – Radio interference, limited VHF coverage, and delayed inter-ACC coordination remain high-impact contributors to Loss of Separation. A regional survey on aeronautical mobile service performance is urgently needed.

❖ **Human performance remains central to ATS safety** – Controller workload, situational awareness, and procedural adherence directly affect operational safety. Refresher and proficiency training, particularly in teamwork, phraseology, and workload management— are critical.

❖ **Wildlife risk requires long-term management commitment** – The persistence of wildlife-related events underscores the need for structured, non-lethal wildlife management programmes, coordinated with environmental and local authorities.

❖ **System reliability must be reinforced** – Recurrent SCF-P/SCF-NP occurrences highlight weaknesses in preventive aircraft maintenance and equipment redundancy planning.

❖ **Runway safety requires stronger local accountability** – Excursions and incursions reflect possible gaps in runway safety team activity, signage maintenance, and driver control; enhanced airport-level oversight and safety promotion may be required as appropriate.

❖ **Weather risk mitigation needs modernization** – Frequent turbulence, wind shear, and reduced-visibility events highlight the importance of deploying **Low-Level Wind Shear Alert Systems (LLWAS)** and standardizing **Low-Visibility Procedures (LVPs)** across AFI airports.

❖ **Early indications of improved inter-FIR coordination** – Although it is **too early to draw firm conclusions** due to the limited amount of data received in 2024, a **slight decrease in inter-FIR coordination errors and Large-Height Deviations** was observed compared

with 2023. This may suggest the **initial benefits of enhanced communication through automated coordination systems (such as AIDC) and adherence to Letters of Agreement (LOAs)**. Nevertheless, **continued attention to coordination procedures** and systematic monitoring will be essential to confirm and sustain any emerging improvement.

2.10 The meeting acknowledged the safety benefit of a comprehensive analysis of all events recorded, and therefore the need for the participation of RSOOs specialized in Aerodrome and Ground Aids (AGA) and Aircraft Operations (OPS) was commonly agreed. The meeting called for the adoption of the new Terms of reference (TOR) of the AEAG to engage all stakeholders as well as the missing RSOOs. The proposed TORs is presented as Appendix 1 to this paper.

AEAG Perspectives (2025–2026 Roadmap)

2.11 Building on AEAG/1 discussions and the outcomes of the scrutiny group, the meeting endorsed a forward-looking roadmap designed to ensure the continuity, traceability, and sustainability of AEAG activities across the AFI Region.

a) Roadmap and Operating Model

- Twelve-month AEAG Operational Plan (Nov 2025 – Oct 2026).
- Two virtual data-review sessions and one in-person annual plenary each year.
- Core deliverables: Mid-Year Safety Bulletin and Annual AEAG Report feeding into AASPG processes.
- Continuous safety-cycle approach transforming data into recommendations and recommendations into measurable safety improvements.

b) Resources and Digital Platform

- AAMAC confirmed as Technical Secretariat and host of the AEAG digital-platform pilot under ICAO (WACAF / ESAF) oversight.
- Pilot deployment in 2026 with API integration to RSOO databases (AAMAC, BAGASOO, CASSOA, SASO).
- Platform features: role-based access, automated validation, dashboards, recommendation tracker, and confidentiality-by-design architecture.

c) Training and Harmonization

- Adoption of a 2026 Training Plan covering taxonomy, severity assessment, data quality, and confidentiality.
- Quarterly peer-review and calibration workshops to harmonize event classification among RSOOs and focal points.
- Continuous communication channels (SharePoint/WhatsApp forum) to sustain collaboration between sessions.

d) Monitoring and Key Performance Indicators (KPI)

- Balanced KPI framework covering Governance, Data Quality, and Safety Effectiveness dimensions.

- Key metrics: participation rate of focal points, data completeness and timeliness, implementation rate of AEAG recommendations, and recurrence rate of high-risk event categories.
- Quarterly dashboard and mid-year/annual reports compiled by the Secretariat and shared with ICAO Regional Offices.

e) Risks and Mitigation

- Identified risks: delayed or incomplete data submission, variable data-quality standards, limited technical or financial resources, staff turnover, and confidentiality concerns.
- Mitigation measures: phased digital-platform roll-out, early resource mobilization through ICAO, AFCAC and donors, peer-support among RSOOs, dual national focal points with rapid-onboarding guides, and strict enforcement of the AEAG Confidentiality Charter.

f) Partnership and Visibility

- Strengthened collaboration with ICAO, RSOOs, AFCAC, IATA, industry partners (airlines, airports, associations), and training institutions for capacity-building and data correlation.
- Publication of AEAG Annual Report and Digital Bulletin, creation of infographics and dashboards summarizing trends, and promotion of AEAG achievements through regional communication channels and social media.

g) Follow-Up Timeline

Period	Key Activity	Lead
Nov 2025	Submission to AASPG	ICAO
Nov 2025	Circulation of AEAG/1 Report	AEAG Secretariat
Q1 2026	Launch of platform pilot + training	RSOOs
Q2 2026	Mid-year data review and KPI dashboard	AEAG Secretariat
Q3 2026	AEAG/2 Plenary and Annual Report	ICAO/ AEAG Secretariat

AEAG/1 Safety and Organizational Recommendations

2.12 Based on the scrutiny group's analysis of 2023–2024 ATS events, the meeting adopted a set of targeted recommendations addressing both safety and organizational aspects. These recommendations aim to strengthen ATC proficiency, airspace design, communication performance, wildlife hazard management, data sharing, and stakeholder participation.

Safety Recommendations

REC 1: States to improve ATC proficiency through enhanced and recurrent training programmes.
REC 2: States to collaboratively organize their airspace through effective dynamic sectorization and strategically deconflicted flight trajectories.
REC 3: ICAO, in collaboration with IATA and RSOOs, to conduct regular surveys on the performance of the Aeronautical Mobile Service in the AFI Region to address the high rate of air–ground communication failures.
REC 4: States and airport operators to review and enhance wildlife management at international aerodromes.

Organizational Recommendations

REC 5: AASPG to expand the mandate of AEAG to include membership of RSOOs specialized in Aerodrome and Ground Aids (AGA) and Aircraft Operations (OPS).

REC 6: States to ensure the timely, consistent and complete sharing of safety data to enable effective analysis of ATS events by AEAG.

REC 7: RSOOs to foster the inclusive participation of all potential stakeholders in AEAG activities, including professional organizations such as IFALPA, IFATCA and IFATSEA.

REC 8: ICAO, in coordination with ARMA, IATA and the concerned RSOOs, to coordinate the restart of the Tactical Action Group (TAG) to develop and follow up on the implementation of safety-related tactical solutions.

3 ACTION BY THE MEETING

The Meeting is invited to:

a) Note the successful conduct of AEAG/1 and its key deliverables;
b) Support the AEAG 2025–2026 Roadmap and governance arrangements;
c) Support resource mobilization for the AEAG digital platform and training activities;
d) Encourage States and ANSPs to submit comprehensive ATS safety data regularly through their RSOOs; and
e) Endorse the proposed conclusion on the new TORs for the AEAG.

AASPG/1 Conclusion 1/XX: Terms of Reference of AEAG					
Why:	*That, to ensure comprehensive and consistent analysis of ATS events recorded in AFI airspace and aerodromes,*				
What:	a) *the new Terms of Reference of AEAG are endorsed; and* b) *RSOOs ASSA-AC and URSAC are added as new AEAG members.*				
Who:	a) *& b) AASPG*				
When:	a) *& b) 7 November 2026*				
Implementation following up					
Follow-up required	Yes ☐ No ☒	Metrics	**Metric 1:**	Means to collect data	