



WORKING PAPER

FOURTEENTH AIR NAVIGATION CONFERENCE

Montréal, Canada, 26 August to 6 September 2024

Agenda Item 3: Air Navigation System Performance Improvement
3.3: Eighth Edition of the Global Air Navigation Plan (GANP)

**CHALLENGES IN IMPLEMENTING THE GLOBAL AIR NAVIGATION PLAN AND
THE WAY FORWARD**

(Presented by 54 Contracting States², members of the African Civil Aviation
Commission (AFCAC))

EXECUTIVE SUMMARY

Comprehensive implementation of the Global Air Navigation Plan (GANP) by Member States is key to ensuring that the aviation sector is at parity with the rest of the world and that the industry complies with international standards for safety, reliability, and efficiency. This is in line with the No Country Left Behind Strategy. States however face a myriad of challenges in implementing the GANP.

This working paper identifies the common challenges faced by Member States, impeding the successful implementation of strategies outlined in the GANP to attain a globally interoperable and seamless air navigation system. Additionally, it underscores key measures for Member States, alongside other stakeholders, to adopt in order to realize the stated objectives.

Action: The Conference is invited to:

- a) request ICAO to continue support to African Member States through existing mechanism including regional plans and their associated programmes by providing increased training aimed at developing capacity to enhance implementation of GANP requirements elements;
- b) request ICAO to coordinate workshops in partnership with international organisations to educate policymakers on the importance of GANP implementation for global aviation safety, efficiency, and economic advancement;
- c) request ICAO to assist Member States by mobilizing funds for GANP implementation strategies such as infrastructure development;
- d) urge ICAO to ensure that the pace of GANP evolution or updates is such that it does not impose further difficulties on the States and risk leaving them behind;
- e) encourage ICAO and development partners to enhance and focus support towards the implementation of basic building blocks (BBBs) which are the foundational elements for air navigation system; and
- f) urge ICAO to provide assistance to States to develop their national air navigation plans which align with the regional air navigation plans.

¹ English and French versions provided by AFCAC.

² Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Egypt, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Togo, Tunisia, Uganda, United Republic of Tanzania, Zambia, Zimbabwe.

1. INTRODUCTION

1.1 The implementation of the Global Air Navigation Plan (GANP) presents unique challenges for Member States owing to an array of interdependent factors. These challenges stem from constrained technical capabilities among Member States, outdated infrastructure, lack of effective regulatory frameworks, human resource capacity and a lack of adequate funding. The evolution of air navigation systems requires commitment and investment from States and the aviation community. The global air navigation system is becoming more complex with new challenges to embrace emerging technologies and accommodate new entrants. The transformation of air navigation system is not only based on GANP performance ambitions but also is induced by the inevitable use of emerging technologies by many States and regions. Even though a lot has been done by ICAO, there is an urgent need to fast track the support to States in the development and assessment of their national air navigation plan to ensure harmonization within each region, and interoperability of air navigation systems between regions.

1.2 Overcoming these challenges is crucial to enhancing aviation safety, efficiency, and connectivity. Addressing these challenges effectively and implementing strategic solutions can propel Member States towards successfully aligning with internationally agreed aviation standards and practices and ensuring seamless integration with the global air navigation network.

2. DISCUSSION

2.1 Member States face a series of interrelated challenges when it comes to implementing the GANP. These challenges include:

- a) **inadequate air navigation infrastructure:** This can significantly hinder the growth and efficiency of air travel in the region. This issue encompasses various aspects, including airports, air traffic control systems, and supporting facilities and services;
- b) **competing demands for limited resources:** Implementing GANP requires substantial financial investment from participating countries. Limited budgets, especially in developing nations, can hinder progress;
- c) **technological limitations:** Different countries and regions use various air traffic management (ATM) systems, making it challenging to ensure seamless interoperability;
- d) **lack of qualified human resources for GANP interpretation and implementation:** Addressing the shortage of qualified human resources for the GANP requires a multifaceted approach, combining education, collaboration, technological innovation, and regulatory support. By investing in these areas, the aviation industry can better ensure the effective interpretation and implementation of the GANP, leading to a safer and more efficient global air navigation system;
- e) **coordination challenges among aviation stakeholders:** Harmonizing Technological standards across nations requires significant coordination and agreement across regulatory bodies, airlines, air navigation services providers (ANSPs), airports, and manufacturers;
- f) **inadequate data for planning purposes:** By addressing these data-related challenges, the implementation of the GANP can become more effective, leading to improved safety, efficiency, and sustainability in global air navigation;

- g) **policy inconsistencies:** The GANP relies on global standardization to ensure interoperability and safety across international airspace. Inconsistent policies among different countries or regions can lead to discrepancies; and
- h) **lack of/inadequate National Air Navigation Plans by States that align with Regional Air Navigation Plans and GANP:** National Air Navigation Plans (NANPs) serve as blueprints for the development and implementation of air navigation infrastructure and procedures within individual countries. They are crucial for ensuring safe and efficient air traffic management, Integrating national air navigation systems with regional and global frameworks, guiding investment in aviation infrastructure and technology.

2.2 The pace at which GANP is evolving poses additional challenges to many African States. Therefore the strategy for African States will be to prioritise the full and effective implementation of the basic building blocks (BBBs) to provide a firm foundation for the successful implementation of GANP. Immediate support for those States still struggling with BBBs should be directed to this area.

2.3 While recognizing the need to update the GANP on a regular basis, it is important to ensure that the pace of changes does not impose further difficulties at States level and render obsolete the GANP elements for which resources have been engaged by States and industry stakeholders to implement them in their air navigation system. Furthermore, it is important that greater efforts are directed towards achieving the implementation of a minimum set of GANP elements by all States and stakeholders of the air navigation system. In this regard, more focus and efforts should be made by all parties, including ICAO for the implementation of the BBB elements, which are part of this minimum set of founding elements of the Air navigation system.

2.4 In this respect, more sustained efforts, tailored to the needs of the States and regions, should be made to ensure greater understanding and ownership of the GANP content which will contribute to fostering a more effective and wider implementation of the GANP elements in all States and regions.

2.5 ICAO efforts to regularly review and evolve GANP in order to keep it relevant are applaudable and should continue. However, ICAO should be mindful that several States have challenges with the implementation of BBBs and could easily be left behind with rapid pace of GANP evolution.

2.6 It is important for Member States to confront the inherent challenges and establish a definitive trajectory for the implementation of the GANP by fostering enhanced collaboration, cooperation, and resource sharing among States at both regional and international levels. By forging strategic partnerships with international aviation organizations, modernising air navigation systems, and standardising regulatory frameworks, States can significantly enhance the efficacy of GANP implementation. This approach will pave the way for an efficient, safe and secure aviation sector, thereby unlocking new avenues for growth and development within the industry.

2.7 By fostering partnerships with international organizations, modernising air navigation systems, and harmonizing regulatory functions States can make positive strides towards effective implementation of the GANP. The challenges faced by States in implementing GANP are multifaceted and require concerted efforts and pooling of human and financial resources to overcome.

3. CONCLUSION

3.1 Enhancing safety and efficiency in air navigation through measures outlined in the Global Air Navigation Plan (GANP) fosters a more reliable, secure, and sustainable aviation ecosystem in Member

States. By recognizing these challenges and implementing strategic solutions, Member States can enhance aviation safety, efficiency, and connectivity, aligning with international standards and fostering seamless integration into the global air navigation network.

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