



**Twenty First Meeting of the Africa-Indian Ocean Planning and Implementation Regional Group
(APIRG/21)
(Nairobi, Kenya, 9-11 October 2017)**

Agenda Item 3 : Performance Framework for Regional Air Navigation Planning and Implementation

3.6 Evolution of the Global Air Navigation Plan

**GLOBAL, REGIONAL AND NATIONAL AIR NAVIGATION
PLANNING AND IMPLEMENTATION ALIGNMENT**

(Presented by the Secretariat)

SUMMARY

The paper highlights the need to develop national air navigation plans aligned with the regional and global plans. It also encourages the development of a regional modernization programme in the AFI Region based on strategic air navigation regional performance objectives, aimed to materialize the performance-based approach adopted by the Region for the planning and implementation of new air navigation improvements.

Finally, the paper proposes the establishment of Regional Air Navigation Supporting Teams aiming to support States in their efforts to implement air navigation operational improvements taking a harmonized and cost-effective implementation approach.

Action by the meeting is **at Paragraph 3.**

References :

ICAO Global Air Navigation Plan, Doc 9750

ICAO Strategic Objectives: A, B, C, D & E

1. INTRODUCTION

1.1 Air transport today plays a major role in driving sustainable economic and social development. In 2015, it directly and indirectly supported the employment of 63.5 million people, contributed over \$2.7 trillion to global gross domestic product (GDP), and carried over 3.5 billion passengers and 51 million tonnes of freight. In addition, it also serves as one of the most effective tools for ending recessions — an important consideration for governments at every level in a challenging economic environment. Whence, aviation is seen in its service to States, regions and communities through clear cycles of investment and opportunity.

1.2 Air Navigation has witnessed important improvements in recent decades and yet, a considerable portion of the global air navigation system is still limited by conceptual approaches designed in the twentieth century. These legacy air navigation capabilities limit air traffic capacity and growth and contribute to unnecessary gas emissions in the atmosphere.

1.3 If the air transport system is to continue driving global economic prosperity and social development to the extent that the aviation community and the world have grown accustomed, especially in the face of expected regional traffic growth projections and the pressing need for more determined and effective climate-related stewardship, States must fully embrace an evolutionary process and follow a unified path to the future global air navigation system.

2. DISCUSSION

2.1 The future of the global air navigation system needs to be planned, in order to achieve an interoperable system, for all users during all phases of flight, which meets agreed levels of safety, provides for optimum economic operations, is environmentally sustainable and meets national security requirements. To that end, the aviation community has come together to define a Global Air Navigation Plan (GANP).

2.2 The GANP, should define the way to achieve this global vision while, at the same time, serve as an instrument for all aviation stakeholders to define collaboratively air navigation implementation strategies based on specific operational requirements to advance the capabilities of their air navigation system ensuring interoperability of systems and harmonization of procedures. This is why ICAO introduced in the fourth edition of the GANP, a planning framework, the Aviation System Block Upgrades (ASBU) framework and emphasized in its fifth edition the importance of following an aligned performance-based approach at a global, regional and local level.

2.3 The global air navigation system involves complex interactions between many stakeholders with different operational requirements and expectations and regional and national air navigation systems with different maturity levels and availability of resources. In addition, the global vision cannot be achieved directly, but by intermediate steps that need to be established. Therefore, in order to address these challenges and based on the feedback received during the 39th Session of the ICAO Assembly, a multilayer structure was proposed for the sixth edition of the GANP, as follows:

- The Global Managerial Level will be the front door for all stakeholders to ICAO. It is a document written in executive language and endorsed at the highest level. It will contain, among others, a conceptual roadmap to achieve the global vision and performance ambitions based on global traffic forecast, traffic flows, challenges and traffic characteristics that should be pursued by the aviation community always considering local needs and stakeholders' resources.
- The Global Technical Level is the core of the GANP. Its key component is a performance based decision-making method to define air navigation implementation strategies within a global framework of specific operational improvements. This global framework, composed of the ASBUs and the Basic Building Block (BBB), will be maintained in an information warehouse, from which reports can be derived and consists of the basic services to be provided for international civil aviation plus other specific upgrades of these services as operational scenarios requests.

- The Regional Level comprises ICAO Regional Air Navigation Plans (Volumes I, II and III) and other Research and Development Programmes. Regional planning becomes key with this layer, and particularly with the definition of ANP Vol III, in the future of the global air navigation system.
- The National Level, where States are responsible for the development of national air navigation plans following the performance-based decision-making method and its deployment.

2.4 The sixth edition of the GANP is to be presented for discussion during the 13th Air Navigation Conference, October 2018 and for endorsement to the 40th Session of the ICAO Assembly.

2.5 Coordination of implementation by the different stakeholders, both within a State and within or across regions, delivers more benefits than implementation on an ad hoc basis or in isolation. This is one of the reasons why Regions are adopting a coordinated performance-based approach to air navigation planning and implementation.

2.6 Several Regions have materialized this performance-based approach in regional modernization Programmes based on regional requirements (traffic growth, airspace complexity or required investment...) such as SESAR in Europe, Seamless ATM Plan in APAC and NextGEN in the US. These Programmes are driven by strategic regional air navigation performance objectives in some of the 11 ICAO Key Performance Areas¹ and are aligned with the foreseeable evolution of the GANP.

2.7 In addition, these Programmes have identified their optimum solutions from the Aviation System Block Upgrade (ASBU) framework based on their specific regional requirements and they monitor performance and implementation, in order to optimize the use of available resources.

2.8 APIRG has been working diligently to fulfil all stakeholders' needs in the AFI region. In order to drive the evolution of the air navigation system in the AFI Region and align the AFI regional implementation strategy with the global and regional ones, it is then necessary to redefine strategic regional air navigation performance objectives and a regional modernization programme that ensures the achievement of these objectives in the framework of the Regional implementation mechanisms.

2.9 Implementation takes place at a local level. States and ANSPs are the ultimate responsible for modernizing their air navigation system and the only ones who can put the regional strategy forward. The AFI Regional strategy should therefore serve the AFI States as guidance for the development of their own national air navigation plans based on their operational needs and the regional requirements aligned with global objectives.

2.10 The extent to which the regional performance objectives will be realised will depend on local circumstances and the availability of sufficient deployment capacity to bring changes into operation. Therefore, in order to ensure funding and financing, it is important that States develop a national development plan at a ministerial level in which the contribution of the transport system and the air transport system in particular to the national economy is reflected. This will facilitate States to look for external support when needed.

¹ Access and equity, capacity, cost effectiveness, efficiency, environment, flexibility, global interoperability, participation by the ATM community, predictability, safety and security.

3. CONCLUSION

3.1 AFI States must fully embrace an evolutionary process and follow a unified path to the future global air navigation system.

3.2 Due to limited resources, planning choices increasingly need to be justified in advance by an analysis of anticipated performance needs and achievements. Such an explicit management and planning of the air navigation performance is needed to ensure that throughout the implementation process, the performance objectives and expectations of the aviation community are met.

3.3 Guided by the GANP, regional and national planning processes should be aligned and used to identify best solutions based on operational needs. Under the philosophy of “Think globally, act locally”, it is important that the States develop national air navigation plans linked with national development plans to highlight the importance of aviation on national economies and ensure the availability of sufficient deployment resources.

4. ACTION BY THE MEETING

4.1 The meeting is invited to:

- a) request the APIRG to redefine and adopt AFI Air Navigation Regional Performance Objectives;
- b) materialize the AFI Performance-based Approach to achieve the defined regional air navigation performance objectives in a Regional modernization Programme;
- c) reflect this performance-based approach in Volume III of the regional Air Navigation Plan;
- d) request the APIRG Secretariat to revise the AFI regional implementation strategy in the framework of the Regional modernization programme and APIRG Sub-Groups’ activities;
- e) request States to establish National Air Navigation Plan multidisciplinary Teams, provided with the adequate resources, including training, to collaboratively develop and implement national air navigation plans initiatives;
- f) request ICAO Regional Offices (ESAF and WACAF) to establish Regional Air Navigation Supporting Teams (RANST) to support States in their efforts to implement air navigation operational improvements in a harmonized approach, aligned with the Global Air Navigation Plan as well as with the AFI Regional Air Navigation Plan; and
- g) request ICAO Regional Offices (ESAF and WACAF) to promote the development of national development plans at the ministerial or higher levels.