



Agenda Item 1: Follow up of air navigation national plans implementation

**ANALYSIS OF THE PROJECT OF THE GLOBAL
AIR NAVIGATION PLAN - SIXTH EDITION**

(Presented by the Secretariat)

SUMMARY	
<p>This paper presents the multi-layered structure proposed for the sixth edition of the Global air navigation plan (GANP), which highlights the importance of global, regional and national planning alignment. In that sense, information on the develop of performance indicators, and practical application of such indicators in SAM region is given.</p>	
References:	
<ul style="list-style-type: none">• Global air navigation plan (Doc 9750)• Manual on Global performance of the air navigation system (Doc 9883)• Global air traffic management operational concept (Doc 9854)• Manual on air traffic management system requirements (Doc 9882)	
ICAO strategic objectives:	<i>Safety and capacity and efficiency</i>

1. Introduction

1.1 The Global air navigation plan (GANP, Doc 9750) is the highest air navigation strategic document. It is the plan driving the evolution of the global air navigation system and takes into account the Global air traffic management operational concept (GATMOC, Doc 9854) and the Manual on air traffic management system requirements (Doc 9882). The GANP also supports planning for local and regional implementation.

1.2 The 39th Session of the ICAO Assembly endorsed the fifth edition of the GANP, which includes updates to the Aviation System Block Upgrades (ASBU) framework and additional information while maintaining a stable structure as had been requested by the aviation community.

1.3 However, the Assembly also highlighted the need for a more comprehensive update of the sixth edition with further enhancements as part of the evolution towards a performance-driven strategic planning environment which interacts with regional and national research, development and implementation programmes.

1.4 In that sense, a Sixth edition of Global Air Navigation Plan has been prepared. Recently, the Air Navigation Commission agreed the presentation of the drafted GANP for the approval of the Council.

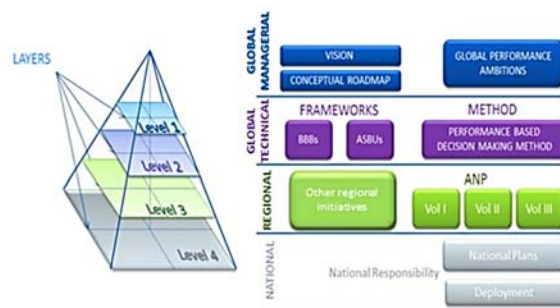
1.5 It is reported that the PPRC/4 meeting (July 2016) due to the changes to be introduced by ICAO to the GANP Sixth Edition, it was considered that the Volume III of the eANP must be aligned with those changes. Therefore, it was agreed to postpone the delivery date for Volume III. Consequently, coordination with States for the development activities of Vol III are foreseen for the last quarter of 2019.

2. Discussion

Multilayer structure

2.1 The 39th Session of the Assembly instructed the Secretary General to promote, make available and effectively communicate the GANP. Therefore, to better communicate with high-level and technical managers and to not leave any State or stakeholder behind, a multilayer structure, tailored for the various audiences, is proposed for the sixth edition of the GANP.

2.2 This four-layer structure, as illustrated below, is made up of global (strategic and technical), regional and national levels, and will provide a framework for alignment of regional, sub-regional and national plans.



2.3 The global strategic level will provide high-level strategic direction for decision makers to drive the evolution of the global air navigation system. To this end, the global strategic level will include a common vision, global performance aspirations and a conceptual roadmap.

2.4 The regional level will address regional and sub-regional needs aligned with the global objectives. As such, it will contain the ICAO regional Air Navigation Plans (ANPs) and consider other regional initiatives. The fourth level, under responsibility of the States, will focus on national planning.

2.5 The development by States, in coordination with relevant stakeholders, of air navigation plans as a strategic part of their national development plans (AN-Conf/13-WP/24 refers) and aligned with regional and global plans is crucial to achieve the common vision being developed in the GANP. These air navigation plans will serve as reference documents for national investment in air navigation infrastructure.

2.6 For all stakeholders to have ready access to the vast amount of information contained in the multilayer structure of the GANP, ICAO is developing the GANP portal

<https://www4.icao.int/ganportal/>

where the different users will be able to find the most relevant information to fit their specific context. This web-based platform will ensure consistency between content on the different GANP levels, as well as provide more comprehensive information through a single interface.

The GANP vision

2.7 The GANP vision will lay out the ultimate objectives of the air navigation system, as well as the emerging challenges and opportunities stemming from aviation and technology trends. The evolution driven by this vision will yield a high-performing global air navigation system to meet the needs of society in general and the Air Traffic Management (ATM) community in particular.

The performance ambitions

2.8 Supporting air transport requires sometimes difficult decisions and strong commitment from the air navigation system stakeholders. In addition to the three fundamental aviation performance principles of safety, security, and environmental and economic sustainability, there are several performance requirements that the air navigation system must meet to fulfil the needs of society. Performance should drive the evolution of the system and it is for this reason that the sixth edition of the GANP will propose performance ambitions.

2.9 These performance ambitions will serve as a call for action, as a catalyst for change and to help set global priorities. Therefore, they should not be seen as targets to continuously monitor and against which to report performance. Expressed in a qualitative but focused way, these performance ambitions will be met by pursuing specific performance objectives in each planning region based on relevant regional challenges.

2.10 The following table shows the performance ambitions linked to 11 key areas of performance (KPA) of the Doc. 9883 " Manual on Global performance of the air navigation system " .

SUMMARY OF THE GANP PERFORMANCE AMBITIONS "A high performing system by 2040 and beyond"	
KPA	Ambition
ACCESS AND EQUITY	No aviation community member excluded or treated unfairly.
CAPACITY	Nominal capacity easily scalable with demand.
	Disruptive events do not interrupt service provision and do not significantly affect the performance of the system.
COST-EFFECTIVENESS	No increase of total direct ANS cost while maintaining the safety and quality of service.
	Significant increase of ANS productivity, irrespective of demand.
EFFICIENCY	Reduction of the gap between the flight efficiency achieved and the desired optimum trajectory of airspace users.
ENVIRONMENT	ANS-induced inefficiencies to be progressively removed to contribute to the global ICAO aspirational goals for CO ₂ emissions.
	To benefit from achieved flight efficiency gains.
FLEXIBILITY	To absorb required changes to individual business and operational trajectories.
INTEROPERABILITY	Essential at an operational and technical level.
PARTICIPATION BY THE ATM COMMUNITY	Pre-agreed level of participation to make the maximum shared use of the air navigation resources.
PREDICTABILITY	No increase in ANS delivery variability including asset availability.
SAFETY	Zero ANS-related accidents and a significant (50%) reduction of ANS-related serious incidents.
SECURITY	Zero significant disruptions due to cyber incidents

2.11 The GANP portal has included a catalogue of performance objectives, showing an initial set of indicators and their respective metrics developed for each of the eleven KPA. See link;

<https://www4.icao.int/ganpportal/ASBU/PerformanceObjective>

2.12 In this sense, there are indicators for the key area KPA 04 - Efficiency, developed, among others, from parameters of "Efficiency of vertical flight" which is divided for flight phases; during the climb, cruise level and descent, in this case named "vertical flight efficiency during descent phase - KPI19".

2.13 These efficiency indicators still are being perfected in its description and practical use, however, the SIMS (Safety Information Monitoring System) initiative which is shown on the portal ICAO (<https://portal.icao.int>) is already monitoring the vertical efficiency of various airports in our Region, focused on continuous descent (CDO) operations and frustrated approaches that are registered through ADS-B data.

2.14 Finally, note that RLA/06/901 has programmed the "Workshop on the identification and implementation of performance indicators for air navigation systems", in the Regional Office, tentative date August, 05 to 09, 2019.

3. Suggested actions

The Meeting is invited to:

- a) take note of the information provided, and the ATM community is encouraged to familiarize with the improvements of the GANP sixth edition, available in the ICAO website, and

- b) take into account the support required for the next activities for the Vol III of the e-ANP.
