



Agenda Item 2: Optimisation of SAM airspace

IMPROVEMENTS ON PLANNING AND IMPLEMENTATION AIMED TO ACHIEVE PERFORMANCE OBJECTIVES THROUGH THE HARMONIZATION OF THE QUEUE MANAGEMENT AND REGIONAL DATA ANALYSIS PROCESS

(Presente by Brazil)

SUMMARY

This paper foster a process for performance management, harmonized at the regional level, to be used in the modernization of the air navigation system; Also, the role of data collection, management; and analysis in the quantification of performance objectives is clarified, and it still clarifies how the Brazilian administration has been working on this issue.

1. Background

1.1 The Eleventh Air Navigation Conference (Montréal, 22 September to 3 October 2003) (AN-Conf/11, Recommendation 4/2 — Investigation of performance-driven planning and implementation methods) and the 35th Session of the ICAO Assembly in 2004 endorsed a performance-based approach to air navigation planning and implementation. However, there has not been worldwide adoption of this approach for planning the modernization of air navigation systems.

1.2 The performance-based approach is a decision-making method that is based on three principles: strong concentration on desired or required results; informed decision making motivated by said desired or required results, and decision making based on facts and data. The performance-based approach has many advantages, including transparency in policy-making, accountability of stakeholders, cost-effective implementation, optimal allocation of resources and success in achieving objectives.

2. Analysis

2.1 Harmonization of air navigation planning at the regional and national levels: performance metrics as opposed to implementation metrics

2.1.1 In 2014, the ICAO Council approved a new template for the Regional Air Navigation Plans to better align global and regional planning. Volume III of the template is used as a tool for monitoring and reporting the implementation status of dynamic/flexible plan elements related to the implementation of the air navigation system and its modernization in line with the ASBUs and the technology roadmaps described in the GANP.

2.1.2 In this regard, the ICAO regions, through their Planning and Implementation Regional Groups (PIRGs), have established implementation targets to advance the capabilities of the air navigation system. However, as highlighted by the performance-based approach, each operational environment is unique and has different needs and varying optimal solutions. Therefore, the commonality is not in the implementation of a particular solution, but in the delivery of an agreed level

of performance. Nevertheless, there might be specific needs to be addressed at a regional level to ensure the interoperability of systems or harmonization of procedures.

2.1.3 ICAO is, therefore, urging States and regions to adopt the six-step performance management process and reflect it in their regional and national air navigation plans as a strategic part of their national development plans: continue monitoring and reporting implementation, or to start monitoring and reporting performance in order to measure the benefits of this implementation using the global key performance indicators defined in the GANP and in the performance objectives catalogue; refrain as much as possible from prescribing specific solutions; and set regional performance objectives aligned with the proposed global performance ambitions and based on regional needs to ensure a minimum quality of service.

2.2 The ICAO Six-Step Performance Management Process

2.2.1 Although there are several ways the air traffic management (ATM) community could apply a performance-based approach, ICAO advocates, in the Manual on Global Performance of the Air Navigation System (Doc 9883), a globally harmonized performance management process based on six well-defined steps (see Appendix to this paper). These steps define a sequence for a repetitive and continuous process.

2.2.2 By systematically following these steps, members of the ATM community will gain confidence in their ability to apply a performance-based approach in a successful manner and benefit from participating in a globally harmonized approach.

2.2.3 When insufficient data are available, the initial steps of the performance management process can be executed in a qualitative way. In order to support the defining of performance objectives in step two (Identify Opportunities, Issues and Set (new) Objectives), ICAO has developed a performance objectives catalogue, accessible at <https://www4.icao.int/ganpportal>, that contains performance objectives expressed in a qualitative and focused way within eleven key performance areas.

In addition, ICAO is developing new key performance indicators to be included in the list of potential key performance indicators presented in the current edition of the GANP, accessible at link;

https://www.icao.int/airnavigation/Documents/GANP-Potential_Performance_Indicators.pdf.

These key performance indicators are linked to the relevant objectives in the performance objectives catalogue to support the execution of step 3 (Quantify Objectives) of the six-step ICAO performance process.

2.2 Brazilian data collection, management, and analysis

2.3.1 The Step 3 Logic (Quantify the objectives) is: “if you can’t measure it, you can’t manage it”. When facts and data are used, they should be relevant and reflect reality, which requires the adoption of a performance measurement culture and investments in data collection, management, and analysis.

2.3.2 Brazil has adopted a performance project in its National Air Navigation Plan: the Performance-based approach. This project complies with the ICAO guidelines contained in the performance objective catalogue and KPIs descriptions with two ATM objectives: compare the ATM performance with other air navigation service providers, and develop ATM indicators according to their specificities.

2.3.3 However, to apply a performance-based approach, there are several methodological aspects of data collection, analysis and management that should be specified, such as the standardization

of terms and methods for calculating indicators, the data needed and their respective collectors, data flow management, etc.

3. **Conclusion**

3.1 Given the Brazilian challenges of measuring the performance of the air navigation system at the national level, it is necessary to adopt a standard process for the data collection, management, and analysis at the regional level, in order to harmonize the performance measure objectives and use them in the modernization of PIRG. In addition, it allows the supervision of the benefits derived from this implementation and to inform about it.

4. **Suggested actions**

3.2.1 The Meeting is invited to:

- a. analyzes the information provided in this paper; and
- b. urges states to harmonize the data collection, management and analysis process in the quantification of performance objectives.

Appendix – THE SIX-STEP ICAO PERFORMANCE PROCESS

