



ICAO

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Thirty-Third Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/33)

Bali, Indonesia, Hybrid Meeting, 22 to 24 November 2022

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

3.0: Regional and National Performance Framework

SETTING PERFORMANCE TARGETS FOR THE ASIA PACIFIC REGION

(Presented by Singapore)

SUMMARY

The use of a performance-based approach in the prioritisation and implementation of ATM initiatives provides States/Administrations and organisations a data-driven and scientific method to achieve their targets. The Asia Pacific (APAC) Air Traffic Management Performance Measurement Framework (ATM/PMF) was endorsed at the 30th APANPIRG in 2019 and APAC States/Administrations were urged to consider the ATM/PMF including the implementation of the eight Stage 1 KPIs listed in the ATM/PMF to achieve the Seamless ATM and regional ATFM goals in the APAC region. At the recently concluded 41st meeting of the ICAO Assembly, the Technical Commission also urged States/Administrations and PIRGs to establish a performance-based management approach and define performance targets according to their needs¹. This paper invites States/Administrations to discuss the establishment of a Performance Measurement Small Working Group at the next ATM/SG to identify the KPIs to be measured and assess the feasibility of setting performance targets.

Strategic Objectives:

B: Air Navigation Capacity and Efficiency — *Increase the capacity and improve the efficiency of the global aviation system*

1. INTRODUCTION

1.1 At a global level, the ICAO *Manual on Global Performance of the Air Navigation System* (Doc 9883) details the importance and benefits of adopting a performance-based approach (PBA) to meet the individual requirements of the Member States/Administrations. The seventh edition of the *Global Air Navigation Plan* (GANP, Doc 9750) endorsed at A41 brings greater consistency across the GANP and *Global Aviation Safety Plan* (GASP, Doc 10004) ensuring an integrated approach to performance management by identifying a common high-level safety performance ambition, focus areas, performance objectives, and key performance indicators (KPIs). Globally, PBA has been utilised extensively to prioritise investments in ATM modernisation efforts to ensure that informed decisions are made, and best outcomes are achieved.

¹ A41-WP/623 Para 30.7

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1.2 At the 41st meeting of the ICAO Assembly, the Technical Commission discussed and highlighted the importance of global, regional, and national harmonisation of performance-based air navigation planning; and urged States/Administrations as well as planning and implementation regional groups (PIRGs) to establish a performance-based management approach and define performance targets according to their needs.

1.3 To advance the adoption of PBA in the Asia Pacific (APAC) Region, the Regional ATM Performance Measurement and Framework Small Working Group (RAPMF/SWG) was established at the third meeting of the ATM Subgroup (ATM/SG/3) to develop the APAC Air Traffic Management Performance Measurement Framework (ATM/PMF). In 2019, APANPIRG endorsed the ATM/PMF at the 30th meeting of the APANPIRG. The ATM/PMF provides the stages of implementation for KPIs identified under the KPAs in the GANP and prescribes a step-by-step performance-based approach to ensure that the region will develop data and performance management capabilities in a harmonised manner.

2. DISCUSSION

ATM Performance Measurement Framework

2.1 The ATM/PMF is a systematic and scientific performance framework to evaluate ATM operational performance. The ATM/PMF includes 28 KPIs across the 11 KPAs identified in Doc 9883 and were proposed to be implemented in 3 stages, with the first stage being the easiest to implement after considering the ease of measurement and data available to Member States/Administrations.

S/N	KPA	KPI	GANP
1	Capacity	Airport peak arrival capacity	KPI09
2	Capacity	Airport peak departure capacity	KPI09
3	Capacity	Airport arrival throughput	KPI10
4	Capacity	Airport departure throughput	KPI10
5	Efficiency	Additional taxi-in time	KPI13
6	Efficiency	Additional taxi-out time	KPI02
7	Predictability	Flight arrival punctuality	KPI14
8	Predictability	Flight departure punctuality	KPI01

Table 1 – ATM/PMF Stage 1 KPIs

2.2 The 31st meeting of the APANPIRG urged Member States/Administrations to implement the eight Stage 1 KPIs listed in **Table 1** Error! Reference source not found.. The monitoring and measurement of KPIs is a key step towards monitoring Member States/Administrations' achievements towards the global ambitions as defined in the GANP.

2.3 The eight Stage 1 KPIs are mapped to the KPAs of Capacity, Efficiency, and Predictability. On their own, the eight KPIs are already useful. Airport peak capacities (KPI09) allow for the effective scheduling of flights and the development of capacity investment plans. Airport throughput (KPI10) allows monitoring of effective peak capacity versus planned capacity for congested airports or demand for uncongested airports. The additional taxi time KPIs (KPI02, KPI13) allow for monitoring of issues in aerodrome surface operations. The Predictability KPIs (KPI01, KPI14) allow for assessment of service quality experienced by passengers and the ability of airlines to keep to schedule.

2.4 Beyond the individual measurements, we can gain additional insights by studying related KPIs together. For example, in the Capacity related KPIs (KPI09 and KPI10), we could look at how close the actual throughput and declared peak airport capacities are to give an indication of how congested airports might be. Another possibility is to study the additional taxi time KPIs (under

Efficiency KPA) with the punctuality KPIs (under Predictability KPA) to understand if punctuality was affected by aerodrome surface inefficiencies or by other issues.

Proposal

2.5 While the implementation of these eight Stage 1 KPIs will facilitate Member States/Administrations' efforts to improve ATM performance in their respective areas of responsibility, it will also spur the region's cooperation to achieve better ATM outcomes together based on a common set of data, KPIs and respective targets. As performance data sharing becomes more prevalent amongst Member States/Administrations, it will facilitate systematic tracking and reporting of improvements in APAC, which will in turn help drive regional modernisation efforts and advance APAC towards GANP performance ambitions. In the process of implementing the eight Stage 1 KPIs, Member States/Administrations will also gain experience and improve data capabilities to prepare for implementation of future stages as laid down by the ATM/PMF. As it has been two years since the call to implement performance measurement and air traffic in the region is steadily recovering post-COVID, it is now timely to move forward with target setting and submission of the eight Stage 1 KPIs to realise the various benefits as discussed above and to incorporate the ATM/PMF into the next edition of the APAC Seamless ANS Plan.

2.6 To progress the APAC region to the next stage of the ATM/PMF as intended, this paper proposes to discuss the establishment of a Small Working Group on Performance Management under the ATM/SG to facilitate the reporting of the eight identified KPIs by States/Administrations, assess the feasibility of setting APAC performance targets, and review the KPIs to be collated under the ATM/PMF. The TORs of the SWG are proposed to be discussed at the next ATM/SG.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to:

- a) note the information in this working paper;
- b) note the benefits of establishing a performance-based management approach in the prioritisation of ATM initiatives;
- c) discuss the establishment of a Performance Measurement Small Working Group at the next ATM/SG to identify the KPIs to be measured and assess the feasibility of setting performance targets.

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