



**Departamento
de Controle do Espaço Aéreo**
Department of Airspace Control



ATM047 Course – ATM Performance Indicators



ATM047 COURSE – ATM PERFORMANCE INDICATORS

Unit 1.1 – INDICATORS

Subunit 1.2.1 (a) – INDICATORS HISTORICAL

October – 2024

Indicators Historical

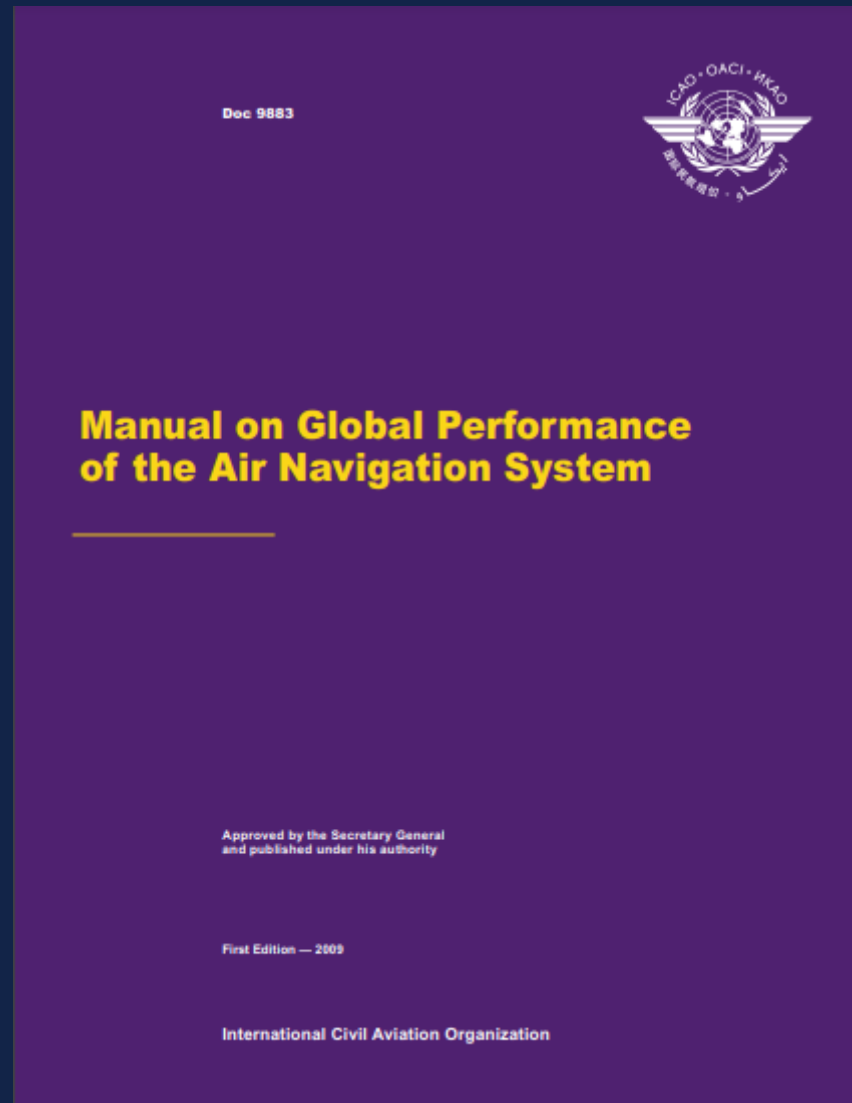
The International Civil Aviation Organization (ICAO) is a specialized agency of the United Nations (UN) that seeks the development of principles and techniques for international air navigation, promoting planning and evolution of air transport.

Indicators Historical

ICAO Drives Progress



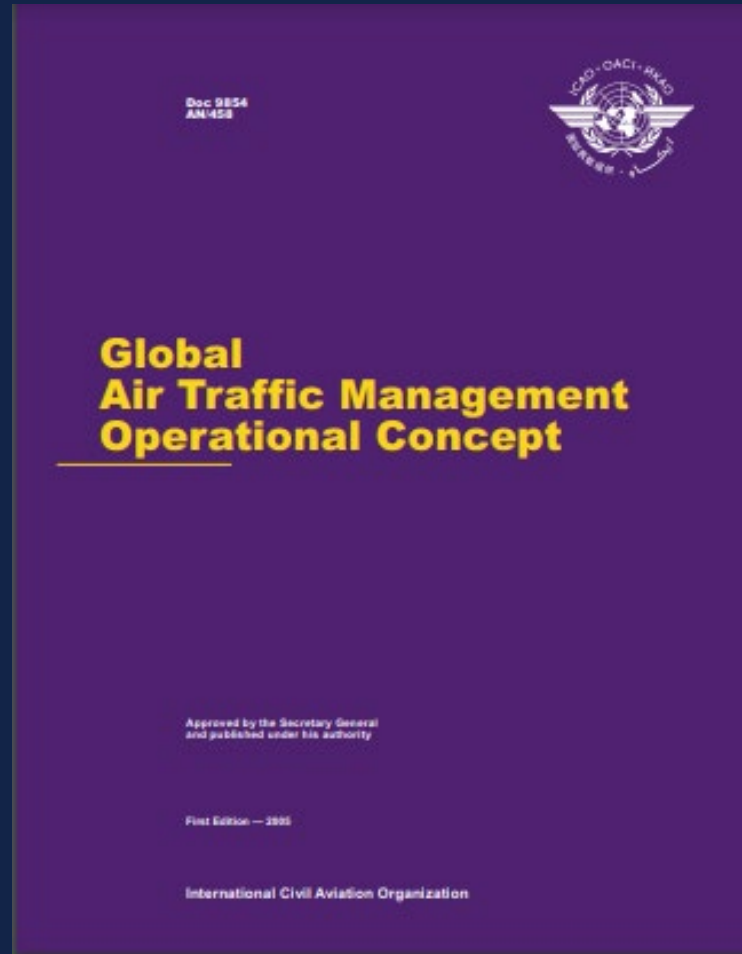
Indicators Historical



Indicators Historical

In 2009 all Planning and Implementation Regional Group (PIRGs), adopting a regional performance framework, invited States to implement a national performance framework for air navigation systems, based on ICAO guidance material.

Indicators Historical



Indicators Historical

While PIRGs progressively identify a set of regional performance indicators, States recognize that collecting, processing, data storage, and reporting in support of regional performance indicators are critical to the success of performance-based strategies.

Indicators Historical

The PIRG performance structure foresees that reporting, monitoring, analysis and review activities to be conducted on a cyclical, annual basis. The Air Navigation Report will be the basis for monitoring performance related to the implementation of the Aviation System Block Upgrade (ASBU) at the regional and national levels.

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The Air Navigation Report will provide the global civil aviation community with an opportunity to compare the evolution of the establishment of Air Navigation infrastructure and performance-based procedures in various ICAO regions.

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ICAO Drives Progress



Indicators Historical



OACI

CAPACIDAD Y EFICIENCIA

Plan mundial de navegación aérea 2016–2030



Doc 9750-AN/963 Quinta edición – 2016



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Asas que protegem o País

Indicators Historical

The GANP is an important planning tool for setting global priorities that drive the evolution of the global air navigation system and ensure that the vision of an integrated, harmonized, globally interoperable and seamless system is realized.

Indicators Historical

Developed in collaboration with stakeholders for their benefit, the GANP makes a key contribution to the achievement of ICAO's strategic objectives.

Indicators Historical

The Global Air Navigation Plan

- **Guides States to correlate their national or regional programmes with the harmonized GANP, but provides them with much greater certainty of investment.**
- **Requires active collaboration between States through the PIRGs, in order to coordinate initiatives within the framework of the applicable regional air navigation plans.**
- **Provides the tools required for States and regions to produce comprehensive cost-benefit analyses when seeking to make specific operational improvements.**
- **Provides an overview of the evolution of the global ATM system and the potential requirements for the industry to make the necessary forecasts for its products.**

Indicators Historical

The content of the GANP is organized into a four-multilayer structure, each of which is tailored to different audiences. This allows a better communication with high-level and technical-level managers, with the aim that no State or stakeholder is left behind.

Indicators Historical

This structure encompasses the global (strategic and technical), regional and national levels, and provides a framework for harmonizing regional, subregional and national plans.

Indicators Historical

This facilitates decision-making because it provides stable strategic guidance for the evolution of the air navigation system and, at the same time, the belonging of the technical content over time.

Indicators Historical

The GANP outlines ten key principles of ICAO's civil aviation policy with global, regional and national guidance on air navigation planning, as summarized below:

Indicators Historical

10 Key ICAO Principles on Air Navigation Policies

1

Commitment Strategic Objectives and Key Performance Areas

2

Aviation safety is the main priority

3

Operational management concept

4

Air navigation global priorities

5

Regional and State Air Navigation Priorities

Indicators Historical

10 Key ICAO Principles on Air Navigation Policies

6

Commitment Strategic Objectives and Key Performance Areas

7

Tiered approach to air navigation planning

8

Use of ASBU Blocks and Modules

9

Cost-benefit and financial issues

10

Review and evaluation of air navigation planning



Indicators Historical

To prioritize future investments and improve system efficiency, it is necessary to **adopt performance management**, as described in Doc 9883, using a carefully selected set of indicators, which also allows for the monitoring of current operations.

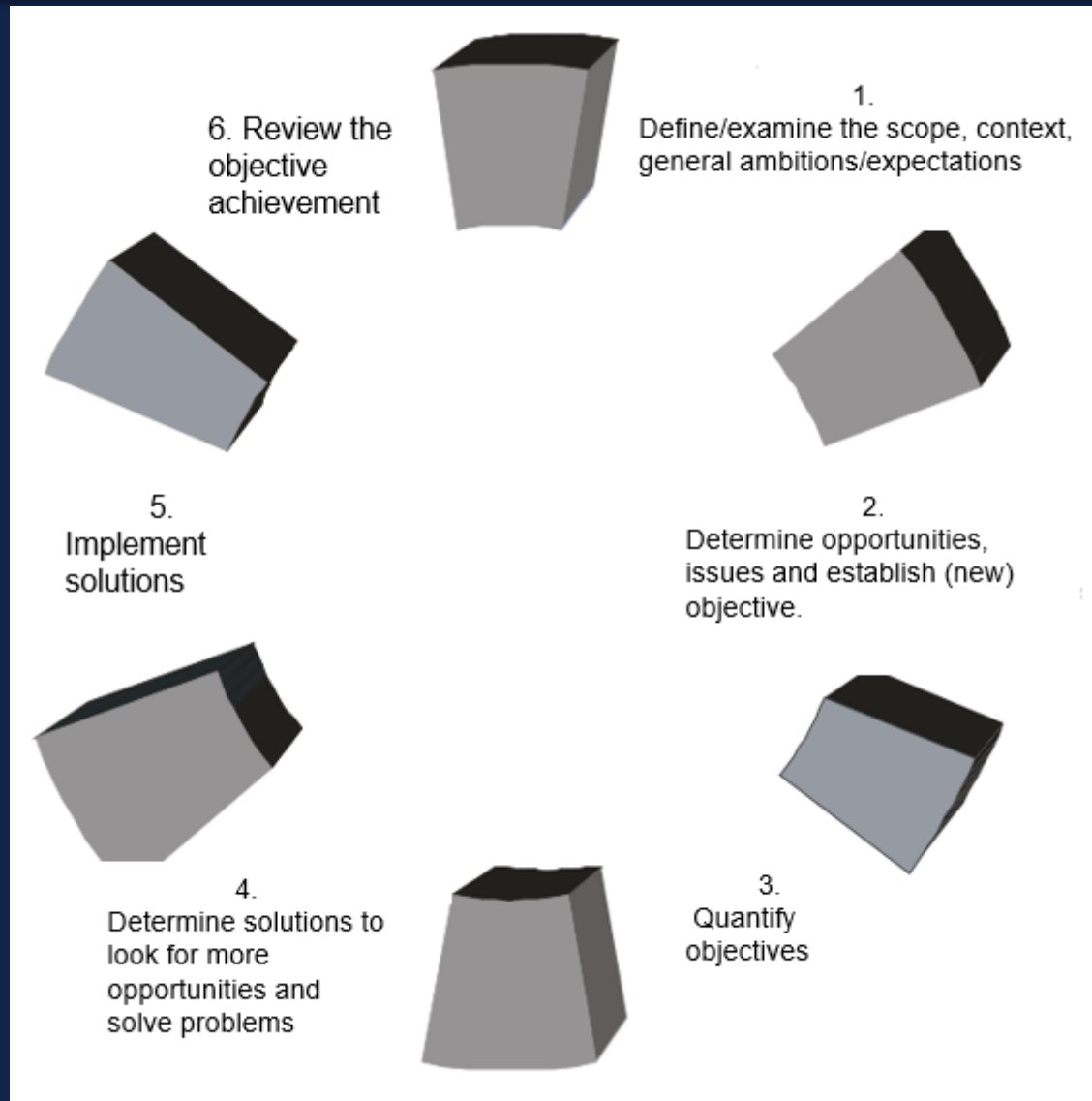
Indicators Historical

The implementation of KPIs will allow to share performance issues and best practices globally, as well as the measurement and documentation of the performance benefits produced by the implementations of new technologies and concepts.

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Performance management will also allow participants to analyze the performance of the air navigation system and to take action, if necessary, to fill any gaps between current and expected performance.

Indicators Historical



Indicators Historical

Summary of the efficiency ambitions of the GANP	
KPA	Ambition
Access and Equity	Any member of the aviation community will be excluded or treated unfairly
Capacity	Nominal capacity easily adjustable to demand
	Disruptive events do not interrupt service delivery or significantly affect system performance
Cost-effectiveness	No increase in the direct total cost of air navigation services while maintaining operational safety and quality of services
	Significant increase in air navigation service productivity regardless of demand
Efficiency	Reduction of the gap between the flight efficiency achieved and the optimal trajectory desired by airspace users
Environment	Eliminations of inefficiencies caused by air navigation services in support of ICAO's global CO ₂ emissions targets
	Benefits due to improvements in flight efficiency

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Flexibility	absorption of changes required from different business and operational trajectories
Interoperability	System compatibility at operational and technical level
ATM Community participation	Pre-agreed level of participation to share air navigation resources as much as possible
Predictability	No increase in variability in the supply of air navigation services, including asset availability
Safety	No accidents related to the air navigation service and significant reduction (50%) in related serious incidents
Aviation Security	No major disruption due to cyber incidents

Indicators Historical

Social Results

- Safety
- Aviation Security
- Environment

High external visibility

Social and political effects

Operational Results

- Cost-efficiency
- Capacity
- Efficiency
- Predictability
- Flexibility

Medium external visibility

Commercial-level effects for users and operators

Performance Enablers

- Global interoperability
- Access and Equity
- ATM Community participation

Low external visibility

not directly visible to society and passengers

Muito obrigado!



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